POLYHEDRON

List of Contents and Author Index
for Volume 15, 1996

Pergamon

POLYHEDRON

The International Journal for Inorganic and Organometallic Chemistry

Editor-in-Chief:
Sir Geoffrey Wilkinson, *Imperial College of Science and Technology*

Executive Editors:
Rest of the World
D C Bradley, *Queen Mary and Westfield College, University of London, Mile End Road, London E1 4NS, U.K. Fax:* (0181) 983 0625

U.S.A. and Canada
M H Chisholm, *Department of Chemistry, Indiana University, Bloomington, IN 47405, U.S.A. Fax:* (812) 855 7148

Editorial Board:
E W Abel, *University of Exeter*
R D Adams, *University of South Carolina*
E Carmona, *Universidad de Sevilla*
E C Constable, *University of Basle*
F A Cotton, *Texas A & M University*
D Coucouvanis, *University of Michigan*
A H Cowley, *University of Texas at Austin*
I G Dance, *University of New South Wales*
J R Dilworth, *University of Essex*
W J Evans, *University of California at Irvine*
R D Gillard, *University of Wales, Cardiff*
M L H Green, *University of Oxford*
N N Greenwood, *University of Leeds*
R H Holm, *Harvard University*
M B Hursthouse, *University of Wales, Cardiff*
F Mathey, *Polytechnique CNRS-SNPE*
W McFarlane, *University of Newcastle upon Tyne*
J A Osborn, *Université Louis Pasteur*
R J Puddephatt, *University of Western Ontario*
H W Roesky, *Universitat Gottingen*
E Sinn, *University of Hull*
F G A Stone, *Baylor University*
P Stoppioni, *Università Degli Studi di Firenze*
A G Sykes, *University of Newcastle upon Tyne*
K Vrieze, *Universiteit van Amsterdam*
K Wade, *University of Durham*
A Yamamoto, *Waseda University*

Polyhedron Reports and Polyhedron Symposia-in-Print
Editors:
M H Chisholm, *Indiana University*
J D Woollins, *Loughborough University of Technology*

Production Editor:
Nicholas J Taylor, *Elsevier Science Ltd, The Boulevard, Langford Lane, Kidlington, Oxford OX5 1GB, U.K. Fax:* +44 (0) 1865 843969;
e-mail: n.taylor@elsevier.co.uk

Publishing, Advertising and Subscriptions Offices: Elsevier Science Ltd, The Boulevard, Langford Lane, Kidlington, Oxford OX5 1GB, U.K. Tel: +44 (0) 1865 843000, Fax: +44 (0) 1865 843010. Authors wishing to use e-mail to contact the Elsevier Science Production Editor for Polyhedron may use the following address: chemistry.production@elsevier.co.uk. We recommend that the journal name is put in the subject field of the message's "envelope" information.

Frequency: Published semi-monthly

Subscription Information
Annual Institutional Subscription Rates 1996: North, Central and South America, U.S. $2939.00, Rest of World, £1848.00. Associated Personal Subscription Rates are available on request for those whose institutions are library subscribers. Sterling prices exclude VAT. Non-VAT registered customers in the European Community will be charged the appropriate VAT in addition to the price listed. Prices include postage and insurance and are subject to change without notice. Subscription enquiries from customers in North America should be sent to: Elsevier Science Inc., 660 White Plains Road, Tarrytown, NY 10591-5153, U.S.A. and from the Rest of the World to Elsevier Science Ltd, The Boulevard, Langford Lane, Kidlington, Oxford OX5 1GB, U.K.

© 1996 Elsevier Science Ltd

PERIODICALS POSTAGE PAID AT NEWARK, NEW JERSEY AND ADDITIONAL ENTRY POINTS. **Polyhedron (ISSN 0277-5387)** is published **24 issues per year (2 issues per month)** by Elsevier Science Ltd, The Boulevard, Langford Lane, Kidlington, Oxford OX5 1GB, U.K. The annual subscription in the U.S.A. is **$2939. Polyhedron** is distributed by Mercury Airfreight International Ltd, 10 Camptown Road, Irvington, New Jersey 07111-1105. POSTMASTER: Please send address corrections to **Polyhedron,** c/o Elsevier Science Inc., 660 White Plains Road, Tarrytown, NY 10591-5153.

CONTENTS

NUMBER 1

	iii	Contributors to this issue
	iv	Deposition of crystallographic data
P. Krzyżanowski, M. Kubicki and **B. Marciniec**	1	Structure of bis-(1,5-cyclooctadiene)-di-μ-(trimethylsilyloxy) dirhodium(I)
M. A. S. Goher and **F. A. Mautner**	5	Synthesis, crystal structure and spectroscopic study of *trans*-diazidobis(2,4,6-trimethylpyridine)copper(II) and azidotetrakis (3-ethyl-4-methylpyridine)copper(II) nitrate; [Cu(*s*-collidine)$_2$ $(N_3)_2$] and [Cu(β-collidine)$_4$ (N_3)](NO_3)
Zhong-Zhi Wu, **Zu-En Huang,** Rui-Fang Cai, Zheng Xu, Xiao-Zeng You and Xiao-Yun Huang	13	Synthesis and characterization of dinuclear organolanthanide alkoxides, X-ray crystal structures of $[(C_5H_5)_2Yb(\mu\text{-}OCH_2CH_2CH_2CH_2CH_3)]_2$ and $[(C_5H_5)Yb(\mu\text{-}OCH_2CH_2CH(Me)_2]_2$
M. B. Hursthouse, K. M. A. Malik, **F. A. Hart** and D. W. Owen	23	Preparation and X-ray crystal structures of dimethyl(diphenylbut-4-enylphosphine)platinum(II) and dimethyl(dimethylbut-4-enylarsine)platinum(II)
A. Włodarczyk, R. M. Richardson, M. D. Ward, **J. A. McCleverty, M. H. B. Hursthouse** and S. J. Coles	27	Complexes of tris(3,5-dimethylpyrazolyl)borates alkylated on the 4-position of the pyrazolyl rings. X-ray crystal structure of molybdenum dicarbonyl nitrosyl tris(3,5-dimethyl-4-n-butyl-pyrazolyl)borate
Suh-Shing Tang, I-Chih Liu, Chu-Chieh Lin, **Jyh-Horung Chen** and Shin-Shin Wang	37	Synthesis and molecular structure of chloro-*meso*-tetra(4-pyridyl) porphyrinatothallium(III), Tl(tpyp) (Cl)
Wu Heping, **Yin Yuanqi** and Yang Qingchuan	43	Synthesis and reduction reaction of $[SFeCoMo(CO)_8(RCp)]$ [R=HCO (2), CH_3CO (3), C_2H_5OCO (4)] chiral clusters and X-ray crystal structure of $[SFeCoMo(CO)_8(C_2H_5OCOCp)]$ cluster
J. I. Bruce, T. M. Donlevy, **L. R. Gahan,** C. H. L. Kennard and K. A. Byriel	49	Zinc(II) complexes of the encapsulating ligands 1-methyl-8-amino-3,13-dithia-6,10,16,19-tetraazabicyclo[6.6.6]icosane (AMN_4S_2sar) and 1-methyl-8-amino-3-thia-6,10,13,16,19-pentaazabicyclo[6.6.6]icosane (AMN_5Ssar). X-ray structural characterization
J. C. Kim, V. L. Goedken and B. M. Lee	57	Synthesis and rotational barrier of tungsten(II) porphyrin dimer, $[W(TPP)]_2$ (TPP = tetraphenylporphyrin)
B. T. Khan, K. M. Mohan, S. R. A. Khan, K. Venkatasubramanian, T. Satyanarayana and G. Y. S. K. Swamy	63	Crystal and molecular structure of bromo(π-allyl)cytidine palladium(II)
K. Kasuga, S. Nagao, T. Fukumoto and M. Handa	69	Cycloaddition of carbon dioxide to propylene oxide catalysed by tetra-*t*-butylphthalocyaninatoaluminium(III) chloride
Chengyong Su, Ning Tang, **Minyu Tan,** Weisheng Liu and Xinmin Gan	73	Synthesis and spectroscopic properties of light lanthanide monoalkyldithio carbamate complexes
Yang Ke-Wu, Yin Yuan-Qi, Huang Zhong-Xian and Wang Yun-Hua	79	Synthesis and crystal structure of the zinc complex $[Zn(P(py)_3)_2][Zn(NCS)_4](MeCN)$

M. Bikrani, L. Fidalgo and **M. A. Garralda** 83 Iridium complexes with α-diimines: catalytic hydrogen transfer from isopropanol to cyclohexanone

B. Albela, M. Corbella and **J. Ribas** 91 Synthesis, characterization and magnetic properties of dinuclear complexes of manganese(III) and manganese(II) with oxo and benzoate derivatives as bridging ligands

S. Kannan, V. Venugopal, **M. R. A. Pillai,** P. A. Droege and C. L. Barnes 97 Synthesis and characterization of sulphoxide adducts of uranyl bis(*β*-diketonates): the crystal and molecular structure of $[UO_2(DBM)_2 \cdot C_6H_5CH_2SOCH_3]$

M. Sado, T. Ozawa, K. Jitsukawa and **H. Einaga** 103 Kinetics and mechanisms of the complex formation reaction of aluminium(III) with 7-(2-carboxyethyl)amino-8-hydroxy-5-quinolinesulphonic acid and related ligands: evidence for pH-dependent linkage isomerism

C. Pettinari, A. Cingolani and B. Bovio 115 Coordination compounds derived from group 5–14 metal salts and 2,2′-bis(pyrazol-1-yl)propane (L—L). X-ray crystal structure determination of the adducts $[(L—L)ZnBr_2]$ and $[(L—L)ZnI_2]$

Zhong-Zhi Wu, Da-Ming Fan, **Zu-En Huang** and Rui-Fang Cai 127 Synthesis and characterization of binuclear biscyclopentadienyl lanthanide acetoximate derivatives; X-ray crystal structure of $[Cp_2Gd(\mu, \eta^2\text{-}ONCMe_2)]_2$

M. B. Hursthouse, K. J. Izod, M. Motevalli and P. Thornton 135 Pyridine-functionalized metal alkyls—II. Synthesis, crystal structures and electronic properties of first-row transition metal 2-pyridino(bistrimethylsilyl)methyls and 2-pyridino (trimethylsilyl)methyls

G. P. Voutsas, K. G. Keramidas and M. Lalia-Kantouri 147 Crystal structure and spectra of *trans*-bis(propanone, 1-[2-hydroxyphenyl]-oximato)palladium(II)

L. Matilainen, M. Klinga and M. Leskelä 153 Trichloro-(2,6-ditertbutylphenoxo)-titanium(IV): synthesis and X-ray structure

J. Cartwright and **A. F. Hill** 157 Oxidative addition of seleninyl chloride to Vaska's complex

Communications

Xian He Bu, Dao Li An, Xi Chuan Cao, Yun Ti Chen, M. Shionoya and E. Kimura 161 Stabilization of nickel(III) ion by new macrocyclic dioxo-tetraamines bearing functional pendant donors

Winnie Ging-Yee Ho and **Wing-Tak Wong** 165 Synthesis and X-ray structure of the hexaosmium carbonyl cluster containing a μ_4-η^3-CO_2 group

T. Kawahashi, H. Tsutsumi and **M. Mikuriya** 169 A novel tetranuclear palladium(II) complex with 2-[(3-amino-propyl)amino]ethanethiol

J. H. Holloway, E. G. Hope, D. R. Russell, **G. C. Saunders** and M. J. Atherton 173 Tris(pentafluorophenyl)phosphine complexes of iridium: molecular structure of *trans*-$IrBr(CO)\{P(C_6F_5)_3\}_2$

Announcements

I Annual Polyhedron Publication Award

NUMBER 2

iii Contributors to this issue

iv Deposition of crystallographic data

A. Garoufis, S. P. Perlepes, A. Schreiber, R. Bau and **N. Hadjiliadis** 177 Mercury(II)–carbon bond cleavage due to the coordination of the metal by 2-(2′-pyridyl)quinoxaline (L): preparation and characterization of $[Hg_2I_4L_2]$ derived from the reaction of CH_3HgI and L

R. Contreras, M. Valderrama, O. Riveros, R. Moscoso and D. Boys	183	Platinum(II) complexes with dithiolates and phosphinites as ligands: crystal structure of $[Pt\{S_2CO\}\{P(OMe)Ph_2\}_2]$
D. A. Bardwell, J. C. Jeffery, C. A. Otter and **M. D. Ward**	191	The crystal structure of $[Cu(Ph_2bipy)_2]\,[BF_4]\cdot CH_2Cl_2$ (Ph_2bipy = 6,6′-diphenyl-2,2′-bipyridine)
M. Decoster, J. E. Guerchais, Y. Le Mest, **J. Sala Pala,** S. Triki and L. Toupet	195	Comparison of the properties of the 1,1,2,4,5,5-hexacyano-3-aza-penta-1,4-dienide$[(NC)_2C{=}C(CN){-}N{-}C(CN){=}C(CN)_2]$ unit as anion and as ligand. Crystal structures of $(Et_4N)(C_{10}N_7)$ and $[\{Ag(C_{10}N_7)\}_\infty]$
J. Granifo	203	Synthesis and characterization of $[ReCl(CO)_3(L)]$ [L=5,6 diphenyl-3-(2-pyridyl)-1,2,4-triazine (dppt) or 3,5,6-tri(2-pyridyl)-1,2,4-triazine (tpt)] and the bidentate coordination of the metalloligand $[ReCl(CO)_3(tpt)]$ to $[M(hfac)_2]$ (M=Mn, Fe, Co, Ni, Cu, Zn; hfac=hexafluoroacetylacetonate ion)
L. Ballester, M. C. Barral, R. Jiménez-Aparicio and B. Olombrada	211	Monomeric and dimeric ruthenium–TCNQ complexes containing phosphine ligands (TCNQ=7,7,8,8-tetracyanoquinodimethane)
C. Scheer, P. Chautemps, I. Gautier-Luneau, J.-L. Pierre G. Serratrice and E. Saint-Aman	219	Interlocked ligands in an octahedral complex of the $Fe^{II}L_2$ type, using tridentate L ligands
R. D. Gillard, D. E. Hibbs, C. Holland, **M. B. Hursthouse,** K. M. Abdul Malik and G. Sykara	225	The X-ray crystal structures of double salts of hexahalorhodate (III) and halide with the ethane-1,2-diammonium cation
Chengyong Su, Ning Tang, **Minyu Tan** and Kaibei Yu	233	Synthesis, properties and structure of lanthanide complexes with N,N-diethyldithiocarbamate and 2,2′-bipyridyl
M. Karbowiak, **J. Drożdżyński** and J. Janczak	241	Synthesis and crystal structure of ammonium tetrachlorouranate(III) tetrahydrate
O. Signorini, **E. R. Dockal,** G. Castellano and G. Oliva	245	Synthesis and characterization of aquo[N,N′-ethylenebis(3-ethoxysalicylideneaminato)]dioxouranium(VI)
J. Chakravarty and **S. Bhattacharya**	257	Ligand control of metal oxidation states. Synthesis, characterization and cyclic voltammetric studies of a group of ruthenium phenolates
Wei Wang, Fu-Li Zeng, **Xin Wang** and Min-Yu Tan	265	Preparation and the crystal structure of a new tetra-N-butylammonium decavanadate
I. Turel, N. Bukovec and E. Farkas	269	Complex formation between some metals and a quinolone family member (ciprofloxacin)
M. A. Zoroddu, R. Dallocchio and S. Mosca	277	Synthesis and spectroscopic characterization of copper(II) ternary complexes of 4-aminobenzoic acid and phenanthrolines
A. L. Abuhijleh	285	Catalytic activities of the antitumour complex bis(acetato)bis(imidazole)copper(II) and bis(valproato)bis(imidazole)copper(II) for the oxidation of organic substrates
L. Ballester, A. Gutierrez, R. Jimenez and M. F. Perpiñan	295	Tetracyanoquinodimethanide derivatives of norbornadiene rhodium(I) fragments
R. M. Ramadan, A. S. Attia and M. F. El-Shahat	301	Spectroscopic and electrochemical activity studies of some molybdenum chrysenesemiquinone complexes
M. Shakir, O. S. M. Nasman and S. P. Varkey	309	Binuclear N_6 22-membered macrocyclic transition metal complexes: synthesis and characterization
J. Fernández-Bertrán, E. Reguera, A. Dago, C. López-Hernández and G. Infante	315	Synthesis and characterization of two complexes of glycine with lanthanum hexacyanoferrate(III) and hexacyanocobaltate(III)

Mao Zong-Wan, Hang Qin-Wei, **Tang Wen-Xia,** Liu Shi-Xiaung, Wang Ze-Min and Huang Jin-Ling — 321 — Structure of an imidazolate-bridged zinc dimer with tris (2-pyridyl)-methylamine ligand and magnetic properties of its copper dimer analogue

L. H. Abdel-Rahman, **L. P. Battaglia,** and M. R. Mahmoud — 327 — Synthesis, characterization and stability constant determination of L-phenylalanine ternary complexes of cobalt(II), nickel(II), copper(II) with N-heterocyclic aromatic bases and X-ray crystal structure of aqua-1,10-phenanthroline-L-phenylalaninato-copper(II) perchlorate complex

V. G. Kessler, N. Ya. Turova, A. N. Panov, A. I. Yanovsky, A. P. Pisarevsky and Y. T. Struchkov — 335 — Synthesis, X-ray structure and thermal decomposition of lanthanum [dioxoisopropoxomolybdate] $[La_2Mo_4O_4(\mu_4\text{-}O)_4(\mu\text{-}OPr^i)_8(OPr^i)_6]$

I. J. Ellison and **R. D. Gillard** — 339 — Caesium hexachlororhodate(IV): an authentic compound of rhodium(IV)

L. Labib, T. E. Khalil, **M. F. Iskander** and L. S. Refaat — 349 — Organotin(IV) complexes with tridentate ligands—III. Synthesis and characterization of some organotin(IV) complexes with *N*-(2-pyridinylmethylene)hydrazinecarbothioamide: the X-ray crystal structure of dimethylmonochloro[(*N*-(2-pyridinylmethylene)hydrazinecarbothioamidato) NS(-1)]tin(IV) hemihydrate

Communications

D. Reed — 359 — The use of low mixing time TOCSY experiments to provide phase-sensititve ^{11}B COSY data

G. E. Buono-Core, A. H. Klahn, F. Aros and V. Astorga — 363 — Benzophenone sensitized photochemistry of a copper(II) polypyrazolylborate complex

J. Yau, **D. M. P. Mingos** and H. R. Powell — 367 — Synthesis and the X-ray crystal structure of $[Au_2(cyclam)_2][BF_4]_2 \cdot CH_3CN$ (cyclam=1,4,8,11-tetraazacyclotetradecane)

Announcement

I — Annual Polyhedron Publication Award

NUMBER 3

iii — Contributors to this issue

iv — Deposition of crystallographic data

M. A. M. Garcia, A. Gelling, D. R. Noble, **K. G. Orrell,** A. G. Osborne and V. Šik — 371 — Fluxional rhenium(I) tricarbonyl halide complexes of substituted pyrazolylpyridine ligands. Nuclear magnetic resonance studies of 1,4 metallotropic shifts

P. Sobota, I. O. Fritsky, J. Ejfler, S. Szafert and T. Głowiak — 381 — The crystal structures and properties of $[VCl_3(THF)_2(H_2O)]$ and $[VCl_3(THF)_2(H_2O)] \cdot THF$

C. A. Kavounis, C. Tsiamis, C. J. Cardin and Y. Zubavichus — 385 — Structure and spectra of dichloro(hydroxy-methoxy-di(2-pyridyl) methane)copper(II)

C. C. Landry, A. Hynes, **A. R. Barron,** I. Haiduc and C. Silvestru — 391 — Gallium and indium compounds of sulphur donor ligands: pyridine-2-thiolates and diphenylthiophosphinates

Baoming Ji, Qiaoyun Du, Kuiling Ding, Yanzhong Li and Zhixian Zhou — 403 — Syntheses and characterization of acetylferrocene pyridine-2,6-diformylhydrazone and its dinuclear yttrium and lanthanide (III) picrate complexes

W. Levason and R. D. Oldroyd — 409 — Synthesis and spectroscopic studies of periodate complexes of tetravalent cerium

P. Kundu, M. K. Saha, S. Sen, **S. Mitra,** S. Kumar, D. Banerjee and R. L. Bhattacharya	415	Thermally induced electron transfer reaction of heterometallic dinuclear complex in the solid state
Wa-Hung Leung, T. S. M. Hun, Kin-Ning Hui, **I. D. Williams** and D. Vanderveer	421	Facile planar–nonplanar *N*-amido interconversion at a Co^{III} centre
J. Valdés-Martínez, R. A. Toscano, A. Zentella-Dehesa, M. M. Salberg, G. A. Bain and D. X. West	427	Synthesis, crystal and molecular structure of 5-bromo-salicylaldehyde-2-methylthiosemicarbazonato(nitrato)copper (II) monohydrate
E. C. Alyea and V. K. Jain	433	A multinuclear NMR investigation of some tricarbonyl molybdenum(0) complexes of group 14 substituted arene ligands
J. D. Martín-Ramos, J. M. Tercero-Moreno, A. Matilla-Hernández, **J. Niclós-Gutiérrez,** A. Busnot and S. Ferrer	439	Copper(II) and nickel(II) chelates with dihydrogen *trans*-1,2-diaminocyclohexane-N,N,N′,N′-tetraacetate(2–) ion (H_2CDTA^{2-}). Synthesis, XRD structure and properties of $[Cu(H_2CDTA)] \cdot H_2O$ and $[Ni(H_2CDTA)(H_2O)] \cdot 4H_2O$
D. M. Hong, Y. Y. Chu and **H. H. Wei**	447	Structure and magnetic properties of 2,2′-bipyrimidine-(bpym)-bridged binuclear Mn^{II} complex: $[Mn_2(H_2O)_6(bpym)(SO_4)_2]$
M. A. S. Goher, M. A. M. Abu-Youssef and **F. A. Mautner**	453	Synthesis, spectral and structural characterization of a monomeric chloro complex of zinc(II) with picolinic acid, $[Zn(C_5H_4NCO_2H)(C_5H_4NCO_2)Cl]$
I-Chih Liu, Chu-Chieh Lin, **Jyh-Horung Chen** and Shin-Shin Wang	459	Molecular structure of diacetatotetraphenylporphyrinatotin(IV): $Sn(ttp)(OAc)_2$
S. Kannan, V. Venugopal, M. R. A. Pillai, P. A. Droege, C. L. Barnes and E. O. Schlemper	465	The dibenzylideneacetone adducts of uranyl bis(*β*-diketonates). The low temperature NMR behaviour and molecular structure of $[UO_2(TTA)_2 \cdot DBA]$
J. K. Beattie, T. W. Hambley, J. A. Klepetko, **A. F. Masters** and P. Turner	473	The isolation and crystal structure of the powerful Lewis acid, planar tetrakispyridine cobalt(II), $[Co(C_5H_5N)_4]^{2+}$, as its mixed chloride hexafluorophosphate salt
A. Pasini, A. Colombo and G. Marturano	481	Studies on the basic properties of the oxo group in [TiO (salen)]
V. P. Fedin, M. R. J. Elsegood, W. Clegg and **A. G. Sykes**	485	High-yield synthesis of the cuboidal rhenium cluster $[Re_4S_4(CN)_{12}]^{4-}$ by reaction of the triangular cluster $[Re_3S_7Br_6]^+$ with cyanide
K. A. Butakoff, D. A. Lemenovskii, **P. Mountford,** L. G. Kuz'mina and A. V. Churakov	489	New titanium and zirconium sandwich and half-sandwich complexes containing the $C_5Me_4CH_2CH_2CH{=}CH_2(Cp^{=})$ ligand
H.-O. Stephan and **G. Henkel**	501	Synthesis, structure and properties of di- and tetranuclear manganese(II) chalcogenolate complexes $[Mn_2(SC_3H_7)_6]^{2-}$, $[Mn_2(SCH_3)_6]^{2-}$, $[Mn_2(SeC_3H_7)_6]^{2-}$, $[Mn_4(SC_3H_7)_6Cl_4]^{2-}$ and $[Mn_4(SeC_3H_7)_6Br_4]^{2-}$
A. Flamini and N. Poli	513	Solution studies of the reaction between the pyrrolenine anion 1,1,2-tricyano-2-(3,4-dicyano-5-imino-2,5-dihydro-1*H*-pyrrol-2-ylidene)ethanide and palladium(II) chlorides. Formation and characterization of the mono *β*-diimino-tetracyano-pyrrolizinido-palladium(II) complex
Jing-Yang Niu, **Xiao-Zeng You,** T. C. W. Mak and Zhong-Yuan Zhou	519	Synthesis, characterization and crystal structure of a new transition metal disubstituted ternary heteropolyoxometallate

Pr. Athappan and G. Rajagopal 527 Synthesis, spectroscopic and redox behaviour of copper(II), nickel(II) and cobalt(II) complexes of some macrocyclic multidentates

Ming-Xing Li, **Gao-Yang Xie,** Song-Lin Jin, Yi-Dong Gu, Ming-Qin Chen, Jie Liu, Zheng Xu and Xiao-Zeng You 535 Synthesis and magnetic properties of novel maleato-bridged cyclic tetranuclear manganese(II) complexes: crystal structure of $[Mn_4(\mu\text{-maleate})_2(bipy)_8](ClO_4)_4 \cdot (MeOH)_2(H_2O)_2$

Communications

Janesse, Wing-Sze Hui and **Wing-Tak Wong** 541 Chemical reactivity of $[Os_3W(\mu\text{-H})(CO)_{14}]^-$ anion; synthesis and X-ray crystal structure of $[Os_3W(\mu\text{-H})(CO)_{12}\{\mu_3\text{-}\eta^3\text{-C(H)C(Ph)C(OH)}\}]$

L. G. Hubert-Pfalzgraf, L. Machado and J. Vaissermann 545 Dehydration of lanthanide halides hydrates: crystal structure of $[Ce(\mu\text{-Cl})_3(THF)(H_2O)]\infty$: a bidimensional meshlike polymer

V. M. Visciglio M. T. Nguyen, J. R. Clark, P. E. Fanwick and **I. P. Rothwell** 551 Formation and reactivity of 1,3-cyclohexadiene complexes of niobium and tantalum containing aryloxide ligation: selectivity differences in the hydrogenation of 1,3-cyclohexadiene

D. A. Lewis, D. J. Williams, A. M. Slawin and **J. D. Woollins** 555 Main group complexes of aminophenol. The X-ray structure of $Sn[C_6H_4(NH_2)(O)]_2Cl_2$

Announcements

I Annual Polyhedron Publication Award

II XVIIth International Conference on Organometallic Chemistry

NUMBER 4

iii Contributors to this issue

iv Deposition of crystallographic data

V. A. Grillo, **L. R. Gahan,** G. R. Hanson and T. W. Hambley 559 Synthesis and structural characterization of the bimetallic complex $[Fe([9]aneS_3)_2][FeCl_4] \cdot 2H_2O$

M. A. Fox, W. R. Gill, P. L. Herbertson, J. A. H. MacBride, **K. Wade** and H. M. Colquhoun 565 Deboronation of C-substituted *ortho*- and *meta-closo*-carboranes using "wet" fluoride ion solutions

H. Brunner, L. Poll and **J. Wachter** 573 New insights into the cage fragmentation of As_4S_4 and As_4S_3 by their interaction with $(C_5Me_4Et)_2Fe_2(CO)_4$

F. Labrize, **L. G. Hubert-Pfalzgraf,** J. Vaissermann and C. B. Knobler 577 Reactivity of mixed-metal BaCu and BaY β-diketonatoalkoxides with Lewis bases: molecular structures of $[Ba_2Cu(\mu_3,\eta^2\text{-OCHMeCH}_2NMe_2)_2(\mu,\eta^2\text{-thd})_2\ (\eta^2\text{-thd})_2\ (Pr^iOH)_2]$, $[Cu_3(\mu_3\text{-OBu}^t)_2\ (\mu\text{-OBu}^t)\ (\eta^2\text{-thd})_3]$ and $[Ba(\eta^2\text{-thd})_2\ (TMEDA)_2]$

A. F. Chiffey, J. Evans, **W. Levason** and M. Webster 591 The synthesis of palladium–gold and platinum–gold bimetallic complexes based upon bis(diphenylarsino)methane: crystal structure of *trans*-$[Pd(\mu\text{-}Ph_2AsCH_2AsPh_2AuCl)_2Cl_2] \cdot x\ CH_2Cl_2$

T. Adatia and **I. D. Salter** 597 The heteronuclear cluster chemistry of the group IB metals—19. X-ray crystal structure and dynamic behaviour in solution of the mixed-metal cluster $[\{CuRu_4(\mu_3\text{-H})_3(CO)_{12}\}_2\{\mu\text{-}Ph_2P(CH_2)_2PPh_2\}]$: an investigation of the effect of a bidentate diphosphine ligand linking two cluster subunits

C. W. Haigh 605 Enumeration by Pólya's theorem of the isomerism in eight-coordinate complexes in square antiprismatic, triangular dodecahedral and hendecahedral (bicapped trigonal prismatic) geometries

M. Sakhawat Hussain 645 Intramolecular short hydrogen bonding. Synthesis and spectroscopic studies of pyridine *N*-oxide diadducts: X-ray structure of $[(2,6\text{-}(CH_3)_2pyNO)_2\text{–}H][AuCl_4]$

F. J. Berry, L. E. Smart and S. Duhalde 651 Titanium-substituted vanadium and iron antimonates

De-Dong Wu and **T. C. W. Mak** 655 Generation of polymeric structures of cadmium(II) complexes by a flexible double betaine: $[\{Cd_4(L)_2X_8(H_2O)_2\}_n]$ [X=Cl, Br, I; $L = {}^{-}O_2CCH(N^{+}Me_3)CH_2CH_2CH(N^{+}Me_3)CO_2^{-}$]

D. X. West, G. A. Bain, R. J. Butcher, J. P. Jasinski, Yu Li, R. Y. Pozdniakiv, J. Valdés-Martínez, R. A. Toscano and S. Hernández-Ortega 665 Structural studies of three isomeric forms of heterocyclic N(4)-substituted thiosemicarbazones and two nickel(II) complexes

P. Paul and B. Tyagi 675 Synthesis and characterization of dinuclear platinum group metal complexes of a hexadentate ligand α,α′-bis(bis-(2-(diphenylphosphino)ethyl)amino)-*m*-xylene

S. K. Chawla, J. H. Aupers and D. C. Povey 683 Spectral analysis and X-ray crystal structure of the chloropyridine-bis(1,3-diaminopropane)cobalt(III) cation

M. D. Fryzuk, M. Mylvaganam, M. J. Zaworotko and L. R. MacGillivray 689 Synthesis, structure and reactivity of mononuclear paramagnetic complexes of zirconium and hafnium

A. G. Coutsolelos, D. Lux and E. Mikros 705 Synthesis and characterization of homo- and heteroporphyrin dimers involving a rhodium—indium bond

Jingfu Liu, Ying Wang, Qihua Yang, Yaguang Chen, Mingxu Li, Cuige Liu and Shutao Yang 717 Synthesis and properties of undecatungstozincates with a transition metal

R. W. Hay, M. T. H. Tarafder and M. M. Hassan 725 Copper(II) and nickel(II) complexes of hexacyclen (1,4,7,10,13,16-hexa-azacyclo-octadecane) and the kinetics of dissociation of the copper(II) and nickel(II) complexes in acidic solution

A. Dhammani, R. Bohra and **R. C. Mehrotra** 733 Synthesis and characterization of some unique heterocyclic derivatives containing aluminium(III) atoms in 4- and 6-coordination states—3. Reaction of bis(β-diketonato) aluminium(III)-di-μ-isopropoxo di-isopropoxo aluminium(III) with 2-mercaptoethanol and 2,2′-thiodiethanol

Xiao-Ming Chen, Yu-Luan Wu, Ru-Ji Wang and T. C. W. Mak 739 Preparation and crystal structures of two monomeric lanthanide(III) complexes containing betaine and nitrato ligands $[Ln(bet)_2(NO_3)_3(H_2O)_2]$ (Ln=La and Sm)

NUMBER 5/6

iii Contributors to this issue

iv Deposition of crystallographic data

v Polyhedron Reports

POLYHEDRON REPORT NUMBER 58

H. B. Singh and N. Sudha 745 Organotellurium precursors for metal organic chemical vapour deposition (MOCVD) of mercury cadmium telluride

S. P. Kaiwar, A. Sreedhara, M. S. S. Raghavan, **C. P. Rao,** V. Jadhav and K. N. Ganesh 765 Synthesis, characterization and DNA interaction studies of Cr^{III} products isolated from Cr^{VI} reduction with $_1SH$ containing molecules

P. D. Beer and K. Y. Wild	775	New bis-ferrocenyl dibenzo-18-crown-6 ligands that can electrochemically sense group 1 and 2 metal cations
C. C. Addison, S. Arrowsmith, **M. F. A. Dove,** B. F. G. Johnson, N. Logan and S. A. Wood	781	The reaction of ionic nitrites with liquid dinitrogen tetraoxide
M. Devereux, M. McCann, J. F. Cronin, C. Cardin and A. Todd	785	Synthesis, X-ray crystal structure and reactivity of the polymeric copper(II) dicarboxylic acid complex $\{Cu2(\eta^1\eta^1\mu^2\text{-oda})_2(py)_4(H_2O)_2\}_n$(odaH$_2$ = octanedioc acid, py = pyridine)
M. Gómez-Saso, D. F. Mullica, E. Sappenfield, F. Gordon and **F. G. A. Stone**	793	Reaction of *nido*-7,8-$C_2B_9H_{13}$ with pentacarbonyl(methyl) manganese: crystal structure of the charge-compensated complex $[Mn(CO)_3\{\eta^5\text{-}7,8\text{-}C_2B_9H_{10}\text{-}10\text{-}O(CH_2)_4\}]$
J. Charalambous, D. V. Raghvani, O. Carugo, C. B. Castallani and N. Sardone	803	Synthesis and characterization of the *facial* and *meridional* isomers of Co(5-MeOqo)$_3$ (5-MeOqoH = 5-methoxy 1,2-benzoquinone-2-oxime) and crystal structural of *fac*-Co(5-MeOqo)$_3$
Ju Song Xia, Songchun Jin and **Wenqi Chen**	809	Synthesis and crystal structure of $(\eta^8\text{-}C_8H_8)Gd(\eta^5\text{-}C_6H_5CH_2C_5H_4)\cdot DME$
R. W. Hay, R. Bennett and A. K. Basak	813	Base hydrolysis and mercury(II)- catalysed aquation of the chloropentamine *cis*-$[Co(en)_2(\beta\text{-alaOH})Cl]^{2+}$ and the reactions of *cis*-$[Co(en)_2(\beta\text{-alaOMe})Cl]^{2+}$ in basic solution
J. Manzur, A. M. Garcia, M. T. Garland, V. Acuña, O. Gonzalez, O. Peña, A. M. Atria **E. Spodine**	821	Magneto-structural characterization of $[Cu_4(prz)_4(CH_3OH)_2L_2'']$ $(ClO_4)_2$ (L″H = 1,1-di-(2-pyridyl)-1-methoximethanol, PRZH = pyrazole)
V. García-Montalvo, R. Cea-Olivares and G. Espinosa-Pérez	829	Bis(tetraphenylimidothioxodiphosphinate-S,O) lead(II)·benzene,$[Pb\{SO(PPh_2)_2N\}2]\cdot C_6H_6$: a new asymmetric chelate compound exhibiting dimeric association through intermolecular Pb···S interactions
S. H. Jacobson and **R. D. Pizer**	835	Cubic cryptates. A molecular mechanics study
S. T. Breviglieri, E. T. G. Cavalheiro and **G. O. Chierice**	839	Studies of the Fe^{III} behaviour in the presence of bis(2-hydroxyethyl)dithiocarbamate
H. Schumann	845	Dihalogenovanadium(IV) 5,7,12,14-tetramethyldibenzo[*b,i*] [1,4,7,11]tetraazacyclodecinato complexes: spectroscopic characterization and synthetic applications
F. Guilhon, B. Bonnetot, D. Cornu and H. Mongeot	851	Conversion of tris(isopropylamino)borane to polyborazines. Thermal degradation to boron nitride
J. S. Casas, A. Sánchez, J. Sordo, E. M. Vázquez-López, R. Carballo and C. Maichle-Mössmer	861	Diphenyldithiophosphinates of diphenylthallium(III). Crystal and molecular structure of $[Et_4N][TlPh_2(S_2PPH_2)_2]$
N. Nensala and **T. Nyokong**	867	Spectroelectrochemical studies of tin(IV) diphthalocyanine
A. A. Danopoulos, **G. Wilkinson,** T. K. N. Sweet and **M. B. Hursthouse**	873	Reactions of bis(mesitylimido)bis(arylthiolato)chromium(VI) compounds
G. Gioia Lobbia, C. Pettinari, F. Marchetti, B. Bovio and P. Cecchi	881	Synthesis and characterization of copper(I) derivatives with N-donor ligands—III. Hydridotris(1H-PYRAZOL-1-YL)borate. The X-ray crystal structure of $[HB\text{-}(\mu\text{-pz})_3\text{-}Cu(PPh_3)]$
J. S. Casas, A. Castiñeiras, E. García Martínez, A. Sánchez González, **J. Sordo,** E. M. Vázquez López and U. Russo	891	The influence of hydrogen bonding, hydration and the R substituent on the structure of $[SnR_2(Hmimt)_4](NO_3)_2$ complexes [Hmimt = 1-methyl-2(3H)-imidazolinethione]. The crystal structure of tetrakis[1-methyl-2(3H)-imidazolinethione] diphenyltin (IV) nitrate dihydrate

J. Valdés-Martínez, A. Enriquez, A. Carbrera and G. Espinosa-Pérez	897	C—H···O hydrogen-bonding interactions as packing tools. Crystal structure of [$W(CO)_5$(acetone-4-methylthiosemicarbazone)]
Ren-Gen Xiong, Bao-Lin Song, Jing-Lin Zuo **Xiao-Zeng You** and Xiao-Ying Huang	903	Synthesis and properties of complexes of Cu^{II}, Ni^{II} and Zn^{II} with N,N′-trimethylene bis(salicylaldehyde imine). Crystal structure of $Cu(Sal_2tn)$
E. Argüello, **A. Bolaños,** F. Cuenu, M. Navarro, V. Herrera, A. Fuentes and **R. A. Sanchez-Delgado**	909	Synthesis, characterization and some catalytic properties of ruthenium complexes $Ru(PPh_3)_2Cl_2(L)_2$ [L = 4-Bu^t-py, 4-vinyl-py, 4-CN-py, 4-Me-py, 3-Me-py, L_2 = 4,4′-bipy]. Kinetics of cyclohexane hydrogenation catalysed by $Ru(PPh_3)_2Cl_2$ (4-Bu^t-py)$_2$
Xiao-Yan Zhang, G. B. Jameson, C. J. O'Connor and **M. T. Pope**	917	High-valent manganese in polyoxotungstates—II. Oxidation of the tetramanganese heteropolyanion $[Mn_4(H_2O)_2(PW_9O_{34})_2]^{10-}$
J. Ghasemi and **M. Shamsipur**	923	A kinetic study of complex formation between calcium ion and cryptand C221 in dimethylsulphoxide solution
L. B. Archer, **M. J. Hanpden-Smith** and E. N. Duesler	929	The role of precursor segregation in the formation of Perovskite phase $PbTiO_3$ from lead(II) glycolate and phenoxyglycolate compounds
E. Guillon, A. Mohamadou, I. Déchamps-Oliver and **J.-P. Barbier**	947	Synthesis and characterization of copper, nickel and cobalt complexes with N-disubstituted, N′ethoxy carbonyl thioureas
J. R. Dilworth, Jin Hu, J. R. Miller, Shaofang Lu and Quiangjin Wu	953	Reaction of thiolato-ligands with rhenium hydrides—III. Complexes of mercaptopyridines. The syntheses and X-ray crystal structures of $[ReHF(2\text{-}SC_5H_4N)_2(PMe_2Ph)_2]BF_4$ and $[ReH(2\text{-}SC_5H_4N)(PMe_2Ph)_4]BF_4$
Shiann-Cherng Sheu, Mong-Jong Tien, Ming-Chun Cheng, **Tong-Ing Ho, Shie-Ming Peng** and Yuan-Chuan Lin	961	Synthesis, properties and molecular structures of cobalt(II), copper(II) and zinc(II) complexes with 1,2-bis[3-(pyrazol-1-YL)-2-oxapropyl]benzene
K. Sakata, M. Hashimoto, T. Hamada and S. Matsuno	967	Synthesis and characterization for five 7,16-dibenzylated tetraaza[14] annulene nickel(II) complexes
M. E. Hossain, M. N. Alam, **M. A. Ali,** M. Nazimuddin, F. E. Smith and R. C. Hynes	973	The synthesis, characterization and bioactivities of some copper(II) complexes of the 2-acetylpyridine Schiff bases of S-methyl- and S-benzyldithiocarbazate, and the X-ray crystal structure of the nitrato(S-benzyl-β-N-(2-acetylpyridyl) methylenedithiocarbazato)copper(II) complex
Ze-Chang Huang, Dai-Zheng Liao, Ruo-Hua Zhang, Xiao-Liang Zhang, Tai-Sheng Huang and Hong Mei Wang	981	Studies on ferromagnetic 1,2-bis(N-octylsulphinyl)ethane copper(II) complexes
P. S. Subramanian and **D. Srinivas**	985	Synthesis, spectral characterization and magnetic properties of dicarboxylato-bridged dinuclear copper(II) complexes with N-pyridylsalicylidenaminato ligand
Ren-Gen Xiong, Bao-Lin Song, **Xiao-Zeng You,** T. C. W. Mak and Zhong-Yuan Zhou	991	Syntheses and properties of some transition metal complexes with methyl substituted 1-hydroxy-2(1H)-pyridinethione and crystal structure of bis(1-hydroxy-4-methyl-2(1H)-pyridinethionato-*O*,*S*′)zinc(II)
C. Diaz and N. Yutronic	997	Coordinating properties of some solvents towards the fragment $CpFe(dppe)^+$
Jing-Yang Niu, **Xiao-Zeng You,** Hoong-Kun Fun, Zhong-Yuan Zhou and Boon-Chuan Yip	1003	Synthesis, crystal structure and photochromism of tri(*N*,*N*,*N*′-tetramethylethylendiammonium)heptamolybdate(VI) tetrahydrate

B. Govind, T. Satyanarayana, and **K. Veera Reddy** 1009 Platinum metal complexes with some new bifunctional ligands—I. Pyrazole amide complexes with Pd^{II} and Pt^{II}

K. C. Rout, R. R. Mohanty, S Jena and **K. C. Dash** 1023 Dioxouranium(VI) and thorium(IV) complexes with 2(2′-pyridyl)1-methylbenzimidazole and reaction of dioxouranium(VI) complex with mercury(II), cobalt(II) and nickel(II)

Communications

F. Kyriakidou, A. Panagiotopoulos, **S. P. Perlepes,** E. Manessi-Zoupa, C. P. Raptopoulou and A. Terzis 1031 Preparation and characterization of *trans*-$[Ni(ONO_2)_2(LH_2)_2]$: the first structural determination of a complex containing the new ligand N,N′-bis(2-pyridyl)urea (LH_2)

A. Garoufis, S. P. Perlepes, N. A. Froystein, J. Sletten and **N. Hadjiliadis** 1035 Mercuration of acetone in the acetone–mercury(II) perchlorate-2-(2-pyridyl) quinoxaline(L) system

Shi-Wei Zhang, Yong-Ge Wei, Qun Liu, Mei-Cheng Shao and Wen-Sheng Zhou 1041 A molecular ferromagnet with T_c=3.3K and an S=9/2 high spin ground state in trinuclear oxo-centered mixed-valence carboxylates

Book Review

B. J. Aylett 1045 Gmelin Handbook of Inorganic and Organometallic Chemistry, 8th Edition

Announcement

I Annual Polyhedron Publication Award

NUMBER 7

iii Contributors to this issue

iv Deposition of crystallographic data

J. Chakravarty and **S. Bhattacharya** 1047 Ruthenium phenolates. Synthesis, characterization and electron-transfer properties of some salicylaldiminato and 2-(arylazo) phenolato complexes of ruthenium

M. Sivák, J. Tyršelová, F. Pavelčík and J. Marek 1057 Synthesis and characterization of a new heteroligand vanadium(V) oxo-monoperoxo complex and first crystal structure with coordinated *N*-(carbamoylmethyl)iminodiacetate

S. Daniele, **L. G. Hubert-Pfalzgraf** and J.-C. Daran 1063 Building of lanthanide oxoalkoxides: synthesis and molecular structure of $[Gd_6(\mu_4\text{-}O)(\mu_3,\eta^2\text{-}OR)_4(\mu,\eta^2\text{-}OR)_6(\mu,\eta^1\text{-}OR)_2(OR)_4]$ ($R = C_2H_4OMe$)

P. Román, J. I. Beitia, A. Luque and C. Guzmán-Miralles 1071 Synthesis, chemical characterization and crystal structure of the anilinium bis(1,2-dithiooxalato-*S*,*S*′)nickelate(II)

R. Alberto, R. Schibli, P. A. Schubiger, U. Abram and T. A. Kaden 1079 Reactions with the technetium and rhenium carbonyl complexes $(NEt_4)_2[MX_3(CO)_3]$. Synthesis and structure of $[Tc(CN\text{-}BU^t)_3(CO)_3](NO_3)$ and $(NEt_4)[Tc_2(\mu\text{-}SCH_2CH_2OH)_3(CO)_6]$

J. Ribas, M. Monfort, B. K. Ghosh, X. Solans and M. Font-Bardia 1091 A mononuclear bis-chelate complex of nickel(II) azide. Synthesis, crystal and molecular structure and magnetism

J. Sharma, Y. Singh, R. Bohra and **A. K. Rai** 1097 Synthesis and spectral studies of diorganotin heterocyclic dithiocarbamate complexes: the crystal structure of $(CH_3)_2Sn[S_2CNCH_2CH_2CH_2CH_2CH_2]_2$

L. Ballester, A. Gutierrez, **M. F. Perpiñan** and C. Ruiz-Valero 1103 Five-coordinate nickel(II) xanthate derivatives with triphos. Crystal structure of tris(O-cyclohexyldithiocarbonato)nickelate(II) of bis(2-diphenylphosphinoethyl)phenylphosphine-O-cyclohexyldithiocarbonatonickel(II)

K. Iftikhar	1113	Mixed-ligand lanthanide complexes—IX. NMR spectral study of the adducts of $Ln(fod)_3$ with 2,2′-bipyridyl and 1,10-phenanthroline
S. Pattanayak, P. Chakraborty, S. K. Chandra and **A. Chakravorty**	1121	Synthesis, structure and metal redox of a family of copper complexes derived from hexadentate ligands incorporating thioether and triazene 1-oxide functions
Wing-Hong Chiu, **Chi-Ming Che** and T. C. W. Mak	1129	Synthesis and X-ray crystal structure of a bis(trimethylsiloxy) ruthenium(III) complex
F. A. Mautner and M. A. S. Goher	1133	Synthesis and structural determination of azidotetrakis-(3-ethyl-4-methylpyridine)copper(II) perchlorate and di-μ(1,1)-azido-[diazidotetrakis(3-ethyl-4-methylpyridine)]dicopper(II), $[Cu(\beta\text{-collidine})_4(N_3)](ClO_4)$ and $[Cu(\beta\text{-collidine})_2(N_3)_2]_2$
Shyh-Jiun Liu and **Chan-Cheng Su**	1141	Bonding properties and electronic structures of mixed-ligand diethylenetriamine copper(II) complexes. Molecular structure of [Cu(biimidazole)(diethylenetriamine)] $(ClO_4)_2$
Furen Shen, Meihua Xie, Jiping Hu, Shaowu Wang and Xiaoying Huang	1151	Synthesis and structural study of cyclopentadienyl lanthanide derivatives containing the 2-naphthoyltrifluoroacetonato ligand
M. R. Sundberg, R. Uggla and M. Melník	1157	Comparison of the structural parameters in copper(II) acetate-type dimers containing distorted square pyramidal CuO_4O and CuO_4N chromophores
W. Henderson, A. G. Oliver and A. J. Downard	1165	Synthesis and X-ray structure of diphenyl ferrocenylmethyl-phosphonate, $FcCH_2P(O)(OPh)_2$, and a study of some ferrocenylmethyl compounds by electrospray mass spectrometry
A. J. Deeming and S. Doherty	1175	Substitution of chloride in $[PtCl_2(dppe)]$ by the chiral anionic ligand $[Mo(CO)_5(PPhH)]^-$: synthesis and X-ray structure of $[Pt(\mu\text{-PPhH})_2\{Mo(CO)_5\}_2(dppe)]$ and a $^{31}P\{^1H\}$NMR analysis of its isomeric products and fluxionality
S. Goswami and S. Choudhury	1191	Isomeric ruthenium(III) complexes of N-phenyl-2-pyridine carboxaldimine. Synthesis, characterization and electron-transfer properties
Bin Zhao, **Yang Jie Wu,** Jing Chao Tao, Han Zhen Yuan Xi An Mao	1197	Studies on the syntheses of hydroxy-bearing benzo-azacrown ethers and their complexing behaviour
		Communications
Xian He Bu, Xi Chuan Cao, Zhi Hui Zhang, Zhi Ang Zhu, Yun Ti Chen, M. Shionoya and E. Kimura	1203	Novel structure of an unusual *cis* nickel(II) complex of a new dioxocyclam bearing 2-methylfuran pendants
Xianglin Jin, Kaluo Tang, Weidong Liu, Hui Zeng, Huihong Zhao, Yuanyuan Ouyang and Youqi Tang	1207	Formation and X-ray structure of a novel tetradecanuclear silver cluster complex, $Ag_{14}(\mu_6\text{-S})(SPh)_{12}(PPh_3)_8\cdot 4CH_3OH\cdot 13H_2O$
J. L. Shreeve-Keyer and **R. C. Haushalter**	1213	Electrochemical synthesis of a new Sb—Te polyanion: X-ray structure of $[(C_4H_9)_4N]_3Sb(Te_2)Te_2$
P. A. Z. Suarez, J. E. L. Dullius, S. Einloft, **R. F. De Souza** and **J. Dupont**	1217	The use of new ionic liquids in two-phase catalytic hydrogenation reaction by rhodium complexes
S. N. Konchenko, A. V. Virovets, S. V. Tkachev, V. I. Alekseev and N. V. Podberezskaya	1221	Metal substitution reaction in the cluster $[(\mu\text{-H})_2Fe_3(\mu_3\text{-Se})(CO)_9]$. Crystal and molecular structure of $[(\mu\text{-H})Fe_2W(\mu_3\text{-Se})(CO)_8(\eta^5\text{-}C_5H_5)]$

Announcements
I Annual Polyhedron Publication Award

NUMBER 8

iii Contributors to this issue

iv Deposition of crystallographic data

A. Shibata, **Y. Kitamura** and Y. Tanabe — 1225 — Preparation and properties of cobalt(III) complexes with a tripod *N*,*N*-bis(3-aminopropyl)glycinato quadridentate ligand

V. P. Fedin, H. Imoto, **T. Saito**, V. E. Fedorov, Y. V. Mironov and S. S. Yarovoi — 1229 — Molecular octahedral sulfido–bromide rhenium clusters: synthesis and crystal structure of $(PPh_4)_2[Re_6S_6Br_8]\cdot CH_3C_6H_5$ and $(PPh_4)_3[Re_6S_7Br_7]$

R. D. Adams, R. Layland and **C. Payen** — 1235 — A new manganese *ortho*-arsenate. The synthesis, structure and magnetic properties of $Ba_2Mn(AsO_4)_2$

Jing-Xing Gao, Hui-Lin Wan, **Wai-Kwok Wong**, Man-Chung Tse and Wing-Tak Wong — 1241 — Synthesis and characterization of iron (2+) and ruthenium (2+) diimino-, diamino- and diamido-diphosphine complexes. X-ray crystal structure of *trans*-$RuCl_2(P_2N_2C_2H_4)\cdot CHCl_3$

P. Román, J. Sertucha, A. Luque, L. Lezama and T. Rojo — 1253 — Magneto-structural studies and thermal analysis of the 4-aminopyridinium tetrabromocuprate(II) monohydrate

C. Pettinari, F. Marchetti, A. Cingolani and S. Bartolini — 1263 — Tin(IV) and organotin(IV) complexes containing mono or bidentate *N*-donor ligands—I. 1-benzylimidazole derivatives

B. G. Jeliazkova and M. A. Doicheva — 1277 — Charge-transfer photochemistry of copper(II) dithiocarbamate mixed-ligand complexes

M. Shakir, O. S. M. Nasman, A. K. Mohamed and S. P. Varkey — 1283 — Transition metal complexes of 13–14-membered tetraaza-macrocycles: synthesis and characterization

V. Venkatachalam, **K. Ramalingam**, R. Akilan, K. Sivakumar, K. Chinnakali and Hoong-Kun Fun — 1289 — X-ray photoelectron spectral study of the planar NiS_4, NiS_2PCl and NiS_2P_2 chromophores and X-ray crystal structure of piperidinedithiocarbamatobis(triphenylphosphine)nickel(II) perchlorate triphenylphosphine monohydrate

V. Venkatachalam, **K. Ramalingam**, T. C. W. Mak and Luo Bao-Sheng — 1295 — Synthesis and single-crystal structure determination of bis(triphenylphosphine)(diisopropyldithiocarbamato)nickel(II) perchlorate chloroform solvate and [1,2-bis(diphenylphosphino-k.*P*,*P*′)ethane](diisopropyldithiocarbamato)nickel(II) perchlorate chloroform solvate: steric effect of bulky alkyl substituents on the dithiocarbamate, free and chelating phosphines on the NiS_2P_2 chromophore

Song Qingbao, Wu Xiaoli, Liang Yongmin, Huang Guosheng and **Ma. Yongxiang** — 1303 — Characterization and crystal structure of formylferrocenyl norbornenoyl hydrazone complexes with bivalent metals

A. F. Chiffey, J. Evans and **W. Levason** — 1309 — The synthesis of palladium–gold and platinum–gold bimetallic complexes based upon tripod tridentate phosphine and arsine ligands

L. I. Victoriano, J. A. Gnecco and H. V. Carbacho — 1315 — Oxidation of tetramethylthiuram sulfide and iron(III) dithiocarbamates with ferric chloride

H. Barjesteh, J. Chakrabarti, **J. Charalambous**, O. Carugo and C. B. Castellani — 1323 — Metal complexes of pyrazole-4,5-dione-4-oximes: crystallographic characterization and their reactions with dimethyl acetylenedicarboxylate

T. Adatia, J. Chakrabarti, **J. Charalambous**, O. Carugo and C. B. Castellani — 1331 — Synthesis and structural characterization of lithium and sodium complexes of 5-ethylamino-4-methyl-1,2-benzoquinone 2-oxime

P. D. Beer, N. C. Fletcher and T. Wear — 1339 — Spectral and electrochemical halide anion recognition by acyclic ruthenium(II) 5,5′-bis-amide substituted bipyridyl receptor molecules

A. V. Komarov and **I. P Parkin** — 1349 — New routes in the self-propagating high-temperature synthesis of barium titanium oxide

Y. Gok — 1355 — The synthesis and characterization of novel tetraoxime and its mono- and polynuclear complexes containing 12-membered diaza-dithia macrocycles

D. T. Hardy, G. Wilkinson and **G. B. Young** — 1363 — Mechanistic studies of ligand-induced thermolytic reductive elimination of biaryl from tetraarylosmium(IV)

L. Luaces, **M. R. Bermejo**, J. A. Garcia-Vazquez, J. Romero, **A. Sousa,** M. Watkinson, Y. Mugnier, **C. A. McAuliffe**, R. G. Pritchard and M. Helliwell — 1375 — The use of electrochemical methods in the preparation of new manganese(II) complexes of bidentate Schiff base ligands and 1,10-phenanthroline: the X-ray crystal structure of 1,10-phenanthroline bis{N-[2-(4-methyl)phenyl]-salicylideneiminato}manganese(II)

Wang Zuoping, Gao Shuang, Xu Lin, Shen Enhong and **Wang Enbo** — 1383 — Synthesis and structural characterization of a tungstophosphate heteropoly blue

J. Smith, **W. Purcell**, G. J. Lamprecht and A. Roodt — 1389 — Substitution kinetics of the aqua ligand in $[Re(NO)(H_2O)(CN)_4]^{2-}$ by the monodentate nucleophiles SCN^-, N_3^- and thiourea and the X-ray crystal structure of $(AsPh_4)_2[Re(NO)(SC(NH_2)_2)(CN)_4]$

Communications

G. R. Willey, P. R. Meehan and M. G. B. Drew — 1397 — Sandwich-type crown ether complexation of scandium(III): formation and structural identification of $[Sc(1,4,7,10\text{-tetraoxacyclododecane})_2][SbCl_6][Sb_2Cl_8(MeCN)_2] \cdot 2MeCN$

C. R. Cheng, **Pak-Hing Leung** and **K. F. Mok** — 1401 — Synthesis and characterization of a nickel(II) complex with a tridentate hybrid ligand containing phosphorus and sulfur

Announcements

I — Annual Polyhedron Publication Award

NUMBER 9

iii — Contributors to this issue

iv — Deposition of crystallographic data

H. Holfter, **T. M. Klapötke** and A. Schulz — 1405 — Preparation of the first iminodisulfurylazide: a nitrogen bound covalent azide containing an N_4 unit

J. A. Thomas, **C. J. Jones**, **J. A. McCleverty** and M. G. Hutchings — 1409 — Molecular wires: an electrochemical study of metal–metal interactions through chains of four carbon atoms

R. Blachnik, K. Hackmann and **B. W. Tattershall** — 1415 — Amino and μ-imino tetraphosphorus trisulfide compounds: NMR evidence for invertomers and bridged cages with an α- or β-P_4S_3 skeleton

Zong-Hui Jiang, Wei Zhang, Dai-Zheng Liao, Zhen-Wei Huan, Yu-Qing Qi and Geng-Lin Wang — 1429 — Synthesis and properties of the complexes of lanthanides with nitronyl nitroxides

J. Besançon, J. Szymoniak and C. Moise	1433	Diastereotopy in the dicyclopentadienyl isothiocyanate and dicarbonyl titanium complexes. ^{13}C NMR analysis
H. Kanno and H. Yokoyama	1437	On the anomalous concentration dependence of the inner-sphere hydration number change of aqua lanthanide ions
P. K. Chakrabarty, I. Ghosh, **R. Bhattacharyya,** A. K. Mukherjee, M. Mukherjee and M. Helliwell	1443	Proton induced reduction of WO_4^{2-} under sulfide–polysulfide environment: a new route to the synthesis of complexes containing $\{W_2^VS_2(\mu\text{-}S)_2\}^{2+}$, $\{W_2O_2(\mu\text{-}S)_2\}^{2+}$ and $\{W_2O_2(\mu\text{-}S)\}^{6+}$ cores
R. Krishna Kumar, **G. Aravamudan,** M. R. Udupa, M. Seshasayee, P. Selvam and K. Yvon	1453	A novel mixed ligand Te(IV) complex comprising three halides and a dithiocarbamate; synthesis and crystal structure of triiododiethyldithiocarbamato-tellurium(IV),$Te\{(C_2H_5)_2NCS_2\}I_3$
F. Lindenberg, J. Sieler and **E. Hey-Hawkins**	1459	Formation of novel P- and As-functionalized ligands by insertion reactions into the Zr—E bond of $(\eta^5\text{-}C_5H_4R)_2ZrCl\{E(SiMe_3)_2\}$ (R = Me, E = P, As; R = H, E = P)
S. Calogero, G. Valle, P. Cecchi and G. Gioia Lobbia	1465	Characterization of two chloroorganotin(IV) containing pyrazole species obtained from the recrystallization of $Me_2SnCl(3,4,5\text{-}Me_3\text{-}Pz)_3BH$
Seong Huh, Kie-Moon Sung, Yangha Cho, **Moo-Jin Jun,** Dongmok Whang and Kimoon Kim	1473	The chemistry and catalytic activity of new cationic ruthenium(II) complexes in the hydrogenation of cyclohexene. Crystal structure of $[RuH(CO)(PPh_3)(P(OMe)_3)(Ph_2PCH_2CH_2AsPh_2)]ClO_4 \cdot n\text{—}C_5H_{12}$
M. J. Janse Van Vuuren, **A. Roodt** and S. S. Basson	1481	Kinetics of the formation of carbonato-oxovanadate(IV) complexes and crystal structure of the cluster $Na_{14}[V_{18}O_{42}(CO_3)] \cdot 28H_2O$
Yu-Peng Tian, Chun-Ying Duan, Zhong-Lin Lu, **Xiao-Zeng You,** Hoong-Kun Fun and Boon-Chuan Yip	1495	Synthesis and spectral studies of some new palladium(II) and platinum(II) dithio complexes: the novel crystal structure of the palladium(II) dithiocarbimato complex
M.-R. Spirlet, J. Rebizant, C. Apostolidis, E. Dornberger, **B. Kanellakopulos** and B. Powietzka	1503	Oxo-bridged bimetallic organouranium complexes: the crystal structure of μ-oxo-bis[tris(cyclopentadienyl)uranium(IV)]
T. Okuno and **Y. Nishida**	1509	Electron delocalization in binuclear manganese(III/IV) complexes with di-μ-oxo bridges
M. Rizzotto, M. I. Frascaroli, S. Signorella and **L. F. Sala**	1517	Oxidation of L-rhamnose and D-mannose by chromium(VI) in aqueous acetic acid
S. Sharma, **R. Bohra** and R. C. Mehrotra	1525	Crystal and molecular structure of a novel mixed ligand complex of tin(IV), $[(Et_2NCS_2)_2Sn(O\text{—}C(CH_3)\text{=}C(S)\text{—}C(O)\text{—}CH_3)]$
M. Navarro, S. E. Galembeck, J. R. Romero and **W. F. De Giovani**	1531	Redox and spectral properties of $[Ru(trpy)L(H_2O)](ClO_4)_2$ [trpy= 2,2′:6′,2″-terpyridine; L = 4,4′-$(OME)_2$bpy; 4,4′-$(NO_2)_2$bpy]: a comparative computational study
D. M. Hoffman and D. Lappas	1539	Synthesis of rhenium(V) cyanide, bipyridine and ylide complexes
A. J. Kotlar, **W. A. Kriner, T. E. Mueller** and L. R. Falvello	1545	Synthesis of several di- and trispiro cyclic siliconmethylene compounds: X-ray crystal structure of 5,7,13-trisila-trispiro [4.1.4.1.4.1]octadecane and 6,8,15-trisila-trispiro[5.1.5.1.5.1] heneicosane
		Communications
F. S. McQuillan and **C. J. Jones**	1553	Redox-active metallocyclophanes: electrochemistry of triangular and square arrays of metal-based redox centres
C. Janiak, S. Mühle, H. Hemling and K. Köhler	1559	The solid-state structure of $K_3C_{60}(THF)_{14}$

G. I. Nikonov, D. A. Lemenovskii and J. Lorberth 1565 The first bismuthido-substituted niobocene

J. Pinkas and **J. G. Verkade** 1567 Dimethylamino gallatrane: solution and gas phase behaviour

T. Ben Hadda, I. Zidane, S. A. Moya and **H. Le Bozec** 1571 Soluble ruthenium carbonyl complexes containing new sterically hindered bipyridine ligands

Wai-Kwok Wong, Yang Chen and **Wing-Tak Wong** 1575 Synthesis and X-ray crystal structure of $[(C_5Me_5)Ru(P_2N_2)]_2[ZnCl_4] \cdot 2H_2O$

M. B. Smith, A. M. Z. Slawin and **J. D. Woollins** 1579 $Ph_2PNHP(O)Ph_2$, a versatile new ligand: syntheses of monodentate and chelating complexes and a novel $Pd_2P_4N_2O_2$ metallocycle

Announcements

I Annual Polyhedron Publication Award

NUMBER 10

iii Contributors to this issue

iv Deposition of crystallographic data

v Polyhedron Reports

POLYHEDRON REPORT NUMBER 59

J. J. Vittal 1585 The chemistry of inorganic and organometallic compounds with adamantane-like structures

C. Pariya, A. Ghosh, **N. R. Chaudhuri,** S. Ghosh, M. Mukherjee and A. K. Mukherjee 1643 Synthesis, chemical characterization, structural data and solid state behaviour of N,N′-diethyl-1,2-ethanediamine complexes of nickel(II) thiocyanate

A. K. Trikha, L. B. Zinner, K. Zinner and **P. C. Isolani** 1651 Emission spectra of europium(III) β-diketonate complexes with N-bases

A. Arquero, **M. A. Mendiola,** P. Souza and M. T. Sevilla 1657 Synthesis, spectral and electrochemical properties of divalent metal complexes containing thiohydrazone and thiosemicarbazone ligands

Ying-Jie Lu and **R. H. Beer** 1667 The reaction of polynuclear tungstates with thionyl chloride: formation of $(n\text{-}Bu_4N)[W(O)Cl_5]$

K. L. Cunningham and **D. R. McMillin** 1673 A simple route to FeCpCp′

Chul Soo Jung, Sung Sil Lee, Ok-Sang Jung and **Youn Soo Sohn** 1677 Synthesis and structural properties of diamineplatinum(II) and diamineplatinum(IV) complexes of alkylidenemalonic acids

V. K. Jain and S. Chaudhury 1685 Preparation and characterization of O,O′-dialkyldithiophosphate complexes of methylplatinum(II)

A. Bernalte-García, M. A. Díaz-Díez, F. J. García-Barros, F. J. Higes-Rolando, A. M. Pizarro-Galán, J. Romero-Garzón and C. Valenzuela-Calahorro 1691 The coordination chemistry of (2-thiazolin-2-yl)hydrazine hydrochloride (TzHyHCL)—I. Crystal structure of the ligand and study of its interaction with nickel(II)

Wei Wang, Fu-Li Zeng, **Xin Wang** and Min-Yu Tan 1699 A study of an oxovanadium(V) complex with a tridentate Schiff base ligand

M. Cano, J. A. Campo, J. V. Heras, E. Pinilla and A. Monge — 1705 — Reaction of $[Mo(I)_2(CO)_3(CH_3CN)_2]$ with the hydrotris(3,5-dimethylpyrazol-1-yl)borate (Tp^{Me2}) ligand. Synthesis and characterization of degradation products and the X-ray structure of the oxo-pyrazole tetrametallic Mo^{v} cluster $[Mo_4O_4(\mu_3\text{-}O)_2(\mu_2\text{-}O)_2(\mu_2\text{-}OH)_2(Hpz^{Me2})_6]I_2 \cdot 4CH_3CN$

E. J. Baran, R. C. Mercader, F. Hueso-Ureña, M. N. Moreno-Carretero, M. Quiros-Olozabal and J. M. Salas-Peregrin — 1717 — Crystal structure, Raman and ^{57}Fe Mössbauer spectra of the Fe^{II} complex of iso-orotic acid

E. C. Alyea and V. K. Jain — 1723 — Syntheses, IR and multinuclear (^{1}H, ^{13}C, ^{31}P, ^{95}Mo) NMR investigation of molybdenum and tungsten carbonyl complexes containing bidentate nitrogen donor ligands

A. Drozdov, A. Pozhitkov, **S. Troyanov** and A. Pisarevsky — 1731 — Synthesis and X-ray structures of barium complexes with pivaloyltrifluoroacetone, $[Ba(pta)_2(H_2O)]$ and $Ba_4(pta)_8$

Communications

Meisheng Zhou, Pak-Hing Leung, K. F. Mok and T. S. A. Hor — 1737 — $[Pt_2(PPh_3)_4(\mu\text{-}S)_2]$ as a metalloligand towards main-group Lewis acids. Evidence of a sulfide-linked $\{BiPt_4\}$ aggregate by 1/2 addition on $BiCl_3$

P. Visonà, **F. Benetollo,** G. Rossetto and P. Zanella — 1743 — Use of $Tl(C_5H_5)$ for the synthesis of $In(C_5H_5)_{3-n}X_n$: crystal structure of $[In(C_5H_5)Cl_2\{O(CH_2CH_2)_2\}_2]$

A. Drozdov and **S. Troyanov** — 1747 — Peroxide ion incorporated inside hexanuclear complex. A new modification of $[Ba_6(thd)_{10}(O_2)(H_2O)_6]$

1751 Errata

Announcements

I IRIS VIII—International Symposium on Inorganic Ring Systems

II Annual Polyhedron Publication Award

NUMBER 11

iii Contributors to this issue

iv Deposition of crystallographic data

Chin-Wing Chan, **D. M. P. Mingos,** A. J. P. White and D. J. Williams — 1753 — A crystal engineering study of copper(II) complexes with 2,4-diamino-6-(4-pyridyl)-1,3,5-triazine (**3**) and 2-amino-4-phenylamino-6-(4-pyridyl)-1,3,5-triazine (**4**)

Zhong-Lin Lu, Chun-Ying Duan, Yu-Peng Tian, **Xiao-Zeng You,** Hoong-Kun Fun and Boon-Chuan Yip — 1769 — Synthesis, characterization and crystal structure of tris(2-aminoethyl)amine copper complex with 4-dimethylaminopyridine ligand

De-Dong Wu and **T. C. W. Mak** — 1775 — Generation of polymeric cadmium(II) complexes by a flexible double betaine: $[\{Cd(L)X_2\}_n]$ [X = Cl, Br] and $[\{Cd_2(L)I_4\}_n]$ [L = *meso*-2,5-bis(pyridinio)adipate]

L. H. Abdel-Rahman, L. P. Battaglia, D. Cauzzi, **P. Sgarabotto** and M. R. Mahmoud — 1783 — Synthesis and spectroscopic properties of N-acetyl-DL-phenylglycinato complexes of cobalt(II), nickel(II) and copper(II). Crystal structures of bis(N-acetyl-DL-phenylglycinato)diaquobis-(N-methylimidazole)cobalt(II), bis(N-acetyl-DL-phenylglycinato) diaquobis (imidazole)cobalt(II) and nickel(II)

Xiao-Min Zhang, **Xiao-Zeng You** and Xin Wang — 1793 — Synthesis, characterization and crystal structure of a binuclear *cis*-dioxovanadium(V) Schiff base complex

Ma Jian-Fang, Hu Ning-Hai and Ni Jia-Zuan	1797	Structure of hydrated dysprosium picolinate, $[Dy(C_5H_4NCO_2)_3(H_2O)_2]2.8H_2O$
Jie Dai, Hanzhang Wang and M. Mikuriya	1801	Electrochemistry of vanadium complexes of *o*-N-salicylidene-aminoethylphenol. A well characterized cyclic mechanism for the gain or loss of vanadyl oxygen
S. M. S. V. Doidge-Harrison, J. T. S. Irvine, G. M. Spencer, **J. L. Wardell,** P. Ganis, G. Valle and G. Tagliavini	1807	Syntheses and properties of the lead 1,3-dithiole-2-thione-4,5-dithiolate (dmit) compounds: $Ph_2Pb(dmit)$, $[Q][Ph_2Pb(dmit)I]$ [Q = NEt_4 or 1, 4-Me_2-pyridinium], $(Ph_3Pb)_2(dmit)$ and Pb(dmit)
G. R. Lee and **J. A. Crayston**	1817	Hydrolysis of acetonitrile in the presence of $NbCl_5$
S. A. Moya, R. Pastene, R. Sariego, **R. Sartori,** P. Aguirre and H. Le Bozec	1823	Complexes with heterocyclic nitrogen ligands—III. Cationic rhodium(I) derivatives and applications in catalysis
A. García-Raso, J. J. Fiol, B. Adrover, E. Molins and C. Miravitlles	1829	X-ray diffraction structure of a ternary copper(II) peptide complex (benzimidazole) (glycylglycinato) copper(II) trihydrate
Shin-Geol Kang, Mi-Seon Kim, Seong-Jin Kim and Kiseok Ryu	1835	Synthesis and characterization of copper(II) and nickel(II) complexes of tetraaza macrocyclic ligands containing one *C*-nitromethyl or -aminomethyl pendant arm
Kyun-Il Na, Seong Huh, Kie-Moon Sung and **Moo-Jin Jun**	1841	Homogeneous catalytic hydrogenation with ruthenium(II) complexes containing phosphine or arsine chelating ligands
S. Yamazaki and **A. J. Deeming**	1847	Crystal structures of two related platinum(II) complexes of the type $[Pt\{SeC(COMe)=C(R)O\}(PPh_3)_2]$ (R = Me or Ph) formed by Se—C bond cleavage of acyl-substituted diselenetanes
Chih-Fan Wang, **Shie-Ming Peng,** Chi-Keung Chan and **Chi-Ming Che**	1853	Luminescent silver(I) cluster. Synthesis, spectroscopic properties and X-ray crystal structure of $[Ag_3(C{\equiv}CPh)_2(dppm)_3]Cl\cdot 4Et_2O\cdot H_2O$ {dppm = bis(diphenylphosphino)methane}
Koulin Zhang, **Zhuang Jin Zhong,** Yong Zhang, Xiaozeng You and Kaibei Yu	1859	Syntheses, structure and magnetic properties of dinuclear oxamidato-bridged copper(II) complexes
M. Motevalli, P. O'Brien and **I. M. Watson**	1865	X-ray crystal structures and thermal behaviour of two volatile bis(1,1,1,5,5,5-hexafluoropentane-2,4-dionato)barium(azapoly-ether) complexes
C. M. Aherne, **A. J. Banister,** I. Lavender, S. E. Lawrence, **J. M. Rawson** and W. Clegg	1877	Reaction of [SNS][AsF_6] with $Hg(CN)_2$ and PhHgCN: preparation and crystal structures of $[Hg(CNSNS)_2][AsF_6]_2$ and $[PhS_4N_3Ph][AsF_6]$
J. E. Varey and **A. G. Sykes**	1887	Preparation of a novel thallium compound of core formula, $TlMo_6S_8^{8+}$
		Communications
R. P. Houghton and C. R. Rice	1893	Cobalt(II)-catalysed decomposition of hydroperoxides. Implications for alkane functionalization
J. A. Seddon, A. R. W. Jackson, **R. A. Kresinski** and A. W. G. Platt	1899	Hypophosphite complexes of the lanthanide metals, $[Ln(H_2PO_2)_x(OH)_{3-x}(H_2O)_n]$ (Ln = La–Nd, Sm, Eu, Dy–Er, Yb, Lu)
M. H. Chisholm, K. Folting, K. G. Moodley and J. E. Wesemann	1903	Further comments on the lability of $M_2(O_2CR)_4$ complexes and structural characterization of $[Bu^n_4N]^+_2[Rh_8(O_2CBu^t)_{16}(O_2CMe)_2(toluene)_2]^{2-}$
M. Fernandez Gonzalez, D. A. Bardwell, J. C. Jeffery and **M. D. Ward**	1907	Metal–polypyridyl complexes with pendant adenine and thymine groups as building blocks for hydrogen-bonded supramolecular assemblies

1913 Errata

Announcements
I Annual Polyhedron Publication Award

NUMBER 12

iii Contributors to this issue

iv Deposition of crystallographic data

F. Benzo, A. Massaferro, M. Queirolo, **B. Sienra,** A. L. Capparelli and D. O. Mártire — 1915 — Base hydrolysis and aquation of *trans*-methyl-substituted acidopenta-amminecobalt(III) complexes

E. Bermejo, **A. Castiñeiras,** R. Domínguez, J. Strähle and C. Maichle-Mössmer — 1923 — Aqua(iodo)(pyridine-1-oxide-2-carboxylate)cadmium(II), $[Cd(C_6H_4NO_3)I(H_2O)]$, a compound with bidimensional supramolecular self-organization

A. S. Kumbhar, **S. B. Padhye,** A. A. Kelkar, R. P. Patil, **R. V. Chaudhari, V. G. Puranik,** N. N. Dhaneshwar and S. S. Tavale — 1931 — Catalytic intermediates in carbonylation reactions—III. Isolation, spectroscopy, electrochemical characteristics and crystal structure of isoquinolinium dicarbonyl tetraiodo iridium(III)

Lan Li, Y. Belay and **S. L. Gipson** — 1937 — Conversion of $OsH_2(CO)(PPh_3)_3$ to $[OsH(CO)(PPh_3)_2L_2]^+$ (L = pyridine, 4-tert-butylpyridine) by oxidation, hydride abstraction and protonation

M. Rapta, P. Kamaras and **G. B. Jameson** — 1943 — Mononuclear precursor of heterodinuclear models for unsymmetrical active sites of metalloproteins: synthesis and structure of dichloro(2-bis(2-benzimidazolylmethyl)aminomethyl-6-[(2 benzimidazoliummethyl)-(2-methoxyphenylmethyl)aminium-methyl]-4-methyl-phenoxo-*O*, *N*, *N′*, *N″*) Fe^{III} bis-perchlorate bis-ethanolsolvate

R. M. Kabbani — 1951 — High yield synthesis of $[(C_4H_9)_4N][Ni(\eta^5\text{-}C_5H_5)B_6H_6]$

W. Henderson and **M. J. Taylor** — 1957 — Organotin halides and their hydrolysed species studied in solution by positive and negative ion electrospray mass spectrometry

B. S. Lima-Neto, J. C. Nascimento Filho and D. W. Franco — 1965 — *Trans* effect and *trans* influence in ruthenium(II) tetraammines: imidazole as a probe ligand

Z. Smékal, F. Březina, Z. Šindelář and R. Klička — 1971 — Mononuclear and binuclear complexes of iron(III) with the tetradentate Schiff base derived from salicylaldehyde and 1,2-diaminopropane

P. D. Lickiss and R. Lucas — 1975 — Ultrasonic activation of SiO_2 and GeO_2 in basic solutions of diols

M. Crespo — 1981 — The reactivity of pyridine-imine and diamine ligands with dimethylplatinum(II) compounds

E. Karkhaneei, A. Afkhami and **M. Shamsipur** — 1989 — Nuclear magnetic resonance studies of sodium ion complexes with several crown ethers in binary acetonitrile–dimethylsulfoxide mixtures

G. Smith, E. J. O'Reilly, H. L. Carrell, C. J. Carrell and C. H. L. Kennard — 1995 — Metal–phenoxyalkanoic acid interactions—38. Structures of the polymeric copper(II) complexes of (2-acetylphenoxy) acetic acid: *catena*-tetrakis-μ-[(2-acetylphenoxy)acetato-*O*,*O′*]-bis[copper(II)], and *catena*-(2-aminopyrimidine-*N*, *N′*)-tetrakis-μ-[(2-acetylphenoxy)acetato-*O*,*O′*)-bis[copper(II)]

Liu Huang, Xu Li, **Huang Jinshun,** Chen Wendan, Huang Xiaoyin and Huang Xin — 2003 — Synthesis, characterization and properties of two novel octanuclear heterometallic molecules consisting of two triangular molybdenum clusters bridged by oxochromium ligands: $M_2[Mo_3O_4(O_2CEt)_8Cr_2(O_2CEt)_8O_4Mo_3]\cdot n(HO_2CEt)$ (M = K, $n = 2$; M = Li, $n = 0$)

R. G. Lawrence, **C. J. Jones** and R. A. Kresinski — 2011 — Heteroleptic trispyrazolylborate complexes of yttrium: the synthesis and X-ray crystal structure of a binuclear *o*-phenanthroline complex $[Y(HBpz_3)(NCS)(\mu\text{-}OH)(phen)]_2$

D. A. Bardwell, J. C. Jeffery and **M. D. Ward** — 2019 — Coordination chemistry of mixed pyridine-phenol ligands; synthesis and crystal structure of $[Cu_2L_2\{\mu\text{-}PhB(OH)O\}_2]$ [HL = 6-(2-hydroxyphenyl)-2,2′-bipyridine], a dinuclear copper(II) complex with phenylboronate bridges

A. J. Amoroso, J. C. Jeffery, P. L. Jones, **J. A. McCleverty** and **M. D. Ward** — 2023 — Complexes of a hexadentate podand ligand with actinides; the syntheses and crystal structures of $[Th(Tp^{Py})(NO_3)_3]\cdot(dmf)\cdot(Et_2O)_{0.5}$ and *trans*-$[UO_2(Tp^{Py})(OEt)]$ {Tp^{Py} = tris[3-(2′-pyridyl)-pyrazol-1-yl]hydroborate}

M. Devereux, M. Curran, **M. McCann,** M. T. Casey and **V. McKee** — 2029 — Manganese(II) salicylate complexes as H_2O_2 disproportionation catalysts: X-ray crystal structure of $[Mn(Hsal)_2(bipy)]\cdot H_2O$ (H_2sal = salicylic acid, bipy = 2,2′-bipyridine)

V. Tondreau, A. M. Leiva, **B. Loeb,** D. Boys, L. K. Stultz and T. J. Meyer — 2035 — Synthesis, characterization and crystal structure of [Ru(tppz)(4,4′-$(CH_3)_2$bpy)Cl](PF_6), (tppz = 2,3,5,6-tetrakis(2-pyridyl) pyrazine)

M. T. Ahmet, B. Coutinho, **J. R. Dilworth,** J. R. Miller, S. J. Parrott and Yifan Zheng — 2041 — The synthesis and characterization of organoimido- Re(V) complexes. The X-ray crystal structures of $[ReCl(NC_6H_4Me\text{-}4)(OMe)(^tBuNC)_2(PPh_3)][BPh_4]$ and $[ReCl_2(NC_6H_4Me\text{-}4)(PPh_3)\{4\text{-}ClC_6H_4(O)CNNCHPh\text{-}O,N\}]$

Cai-Ming Liu, Ren-Gen Xiong, Jing-Lin Zuo, **Xiao-Zeng You** and Xiao-Ying Huang — 2051 — Synthesis and crystal structure of a novel zinc(II) complex $[Zn(pbp)_2](ClO_4)_2$

I. Romero, G. Sánchez-Castelló, F. Teixidor, C. R. Whitaker, J. Rius, C. Miravitlles, T. Flor, L. Escriche and **J. Casabó** — 2057 — Silver(I), mercury(II) and copper(I) complexes of acyclic and macrocyclic dithioether, *meta*-xylyl based ligands

Erbing Hua, Hongfei Wang, Pin Yang, Binsheng Yang and Jianchao Zong — 2067 — Studies on the interaction of Cu^{2+} and Cd^{2+} with poly(I:C)

J. M. Boncella, M. L. Cajigal, A. S. Gamble and K. A. Abboud — 2071 — Synthesis and crystal structures of hydridotris(3,5-dimethyl-pyrazolyl)borate tantalum(V) (=N-2,6-$Pr_2C_6H_3$)(X)Cl (X = Cl, Bu^nO)

A. Bencini, **M. Di Vaira,** R. Morassi, **P. Stoppioni** and F. Mele — 2079 — Synthesis, X-ray crystal structure and bonding in $[(PPh_3)_2PtSe]_2$

Xiang Shi Tan, **Wen Xia Tang,** Jian Chen and Pei Ju Zheng — 2087 — Synthesis, properties and structure of $[Mn^{III}(sal)bpy)(MeOH)Cl]\cdot$(MeOH (sal = salicylate, bpy = bipyridyl, MeOH = CH_3OH)

S. B. Halligudi, K. N. Bhatt, N. H. Khan, **R. I. Kurashy** and K. Venkatsubramanian — 2093 — Synthesis, structural characterization and catalytic carbonylation of nitrobenzene and amines by mononuclear palladium(II) complexes containing substituted pyridine ligands

2103 — Corrigendum

Announcements

I — Polyhedron Symposium-in-Print

II — Annual Polyhedron Publication Award

NUMBER 13

iii Contributors to this issue

iv Deposition of crystallographic data

W. Henderson and G. M. Olsen — 2105 — Application of electrospray mass spectrometry to the characterization of hydroxymethylphosphonium salts, -phosphines, and their oxide, sulfide and selenide derivatives

M. McCann, M. T. Casey, **M. Devereux,** M. Curran, C. Cardin and A. Todd — 2117 — Synthesis, X-ray crystal structure and catalytic activity of the manganese(II) complex $[Mn(bdoa)(H_2O)_3]$ ($bdoaH_2$ = benzene-1, 2-dioxyacetic acid)

M. Cindrić, N. Strukan, Z. Veksli and **B. Kamenar** — 2121 — Synthesis, structure and ESR spectrum of the triclinic and monoclinic forms of hydrated $K_8[MO_8(V^{IV})V_4O_{40}]$

Jianping Lang, **K. Tatsumi** and Kaibei Yu — 2127 — Synthesis and crystal structure of a binuclear copper(I) bromide complex of benz-1,3-thiazolidine-2-thione and triphenylphosphine, $[Cu(bztzdtH)(PPh_3)Br]_2$

T. Nakamoto, M. Yoshida, S. Kitagawa, M. Katada, K. Endo and H. Sano — 2131 — Dependence of the rate of intramolecular electron transfer on crystal form in mixed-valence trinuclear iron phenylacetate complex

J. K. Beattie, T. W. Hambley, J. A. Klepetko, **A. F. Masters** and P. Turner — 2141 — The chemistry of cobalt acetate: the isolation and crystal structure of the symmetric trimer, hexakis(μ-acetato)-μ_3-oxo-tris-(pyridine)tricobalt(III) perchlorate water solvate, $[Co_3O(CH_3CO_2)_6(C_5H_5N)_3][ClO_4]\cdot H_2O$

G. E. Forster, M. J. Begley and **D. B. Sowerby** — 2151 — Salts of the $[(NH_2)Ph_2PNPPh_2(NH_2)]^+$ cation and the crystal structure of $[(NH_2)Ph_2PNPPh_2(NH_2)]_2\,[SbCl_6]Cl\cdot CHCl_3$

M. Melník, I. Potočňak, L. Macášková, D. Mikloš and C. E. Holloway — 2159 — Spectral study of copper(II) flufenamates: crystal and molecular structure of bis(flufenamato)di(*N*,*N*-diethylnicotinamide)di-(aqua)copper(II)

JinSong Ren, Jingyu Hu, Yonghua Lin, Yan Xing and **Qi Shen** — 2165 — The reactivity of lanthanide alkyl compounds with phenylacetylene: synthesis and structure of $[(Bu^tCp)_2LnC{\equiv}CPh]_2$ (Ln=Nd, Gd)

K. Hyvärinen, M. Klinga and M. Leskelä — 2171 — Synthesis and crystal structure of a novel multiple bridged cubane type $(Li_4O_3Cl)_3$ lithium carbonato chloro HMPA siloxane complex, $[[Li_4(\mu_3\text{-}Cl)(\mu_6\text{-}OSi(CH_3)_2O(CH_3)_2SiO)(\mu\text{-}OP(N(CH_3)_2)_3)(OP(N(CH_3)_2)_3)]_3(\mu_3\text{-}Cl)(\mu_9\text{-}CO_3)]\cdot 2C_4H_8O$

R. C. Holz and F. T. Gobena — 2179 — Synthesis, molecular structure and reactivity of a new dicopper(II) benzimidazole complex with non-identical copper(II) sites

K. L. Brown and **H. M. Marques** — 2187 — Conformational flexibility in coenzyme B_{12}: a nuclear magnetic resonance and molecular mechanics study

W. B. Heuer and W. H. Pearson — 2199 — Synthesis and characterization of metal tris-dithiocroconate complexes and dicyanomethylene-substituted analogues . Crystal and molecular structure of $[Ph_4P]_3[Co(dtcroc)_3]\cdot 0.6$acetone

Lin Xu and **S. L. Gipson** — 2211 — Electron-transfer catalysed substitution of dodecacarbonyltriruthenium mediated by dibenzoylethylene: a factorial design experiment

H. Teruel and A. Sierralta — 2215 — Molecular orbital studies in ^{95}Mo NMR shielding for $[MoO_nS_{(4-n)}]^{2-}$ anions: relations between chemical shift and molybdenum orbital electron populations

C. Bachmann, W. Oberhauser and **P. Brüggeller** — 2223 — Nickel(II) complexes containing 1,1,4,7,10,10-hexaphenyl-1,4,7,10-tetraphosphadecane: first X-ray structures of nickel-tetraphos-1 complexes

Ren Yanping, Zhang Li, Yu Kaiyu, Liu Yu and **Wang Liufang**	2231	Calorimetric titration of complexation of seven lanthanide mandelates with 1,10-phenanthroline
R. S. Dickson, Ping Yin, Mingzhe Ke, J. Johnson and G. B. Deacon	2237	The assessment of some cobalt and cobalt–tellurium complexes for MOCVD applications
S. E. M. Flynn, **J. A. McCleverty,** M. D. Ward and A. Włodarczyk	2247	Paramagnetic nitrile complexes of tris{3,5-dimethylpyrazolyl} borato nitrosyl molybdenum
G. M. Escandar, J. M. Salas Peregrin, M. Gonzalez Sierra, D. Martino, M. Santoro, A. A. Frutos, S. I. García, G. Labadié and **L. F. Sala**	2251	Interaction of divalent metal ions with D-gluconic acid in the solid phase and aqueous solution
Yu-Peng Tian, Chun-Ying Duan, Zhong-Lin Lu, **Xiao-Zeng You,** Hoong-Kun Fun and S. Kandasamy	2263	Crystal structure and spectroscopic studies on metal complexes containing NS donor ligands derived from S-benzyldithiocarbazate and *p*-dimethylaminobenzaldehyde
Gong Jian, Chen Yaguang, **Qu Lunyu** and Liu Qin	2273	Preparation and characterization of new peroxyniobium-containing phosphotungstates with Dawson structures
D. L. Clark, J. C. Gordon, **J. G. Watkin,** J. C. Huffman and B. D. Zwick	2279	Structural characterization and reactivity studies of the samarium aryloxide complex $Sm(O\text{-}2,6\text{-}Pr^{i}_{2}C_6H_3)_3(THF)_2$
E. M. Opozda and **E. Śledziewska**	2291	Reactions of some nickel(II) tetraazamacrocyclic Schiff base complexes with unsaturated acid chlorides
		Communications
Shi-Xiong Liu, Da-Ping Huang, Chang-Cang Huang and Jin-Ling Huang	2295	The structure of a new one-dimensional compound: $(TaTe_4)_4I_2(TaI_6)$
J. Dupont, N. R. Basso and M. R. Meneghetti	2299	Chloropalladation of propargyl thioethers: a facile synthesis of cyclopalladated compounds
	2303	Corrigendum
		Announcements
	I	Polyhedron Symposium-in-Print
	II	Annual Polyhedron Publication Award

NUMBER 14

	iii	Contributors to this issue
	iv	Deposition of crystallographic data
M. Angeles Máñez, M. J. Fernández-Trujillo and **M. G. Basallote**	2305	Kinetics of substitution reactions of Fe^{II}-phosphine complexes with Cl^-, Br^- and SCN^- in acetonitrile. A comparative study of complexes containing bidentate and tripodal phosphines
Yeoun J. Seo, **Sock S. Yun,** Ki Y. Choi and **Chong Shik Chin**	2311	Kinetics and mechanism of the reactions of a perchloratoiridium complex with nitriles
R. W. Hay, T. Clifford, J. Klein and P. Lightfoot	2315	Bibrachial ligands from sterically protected tetra-azamacrocycles. Synthesis of bis(N-2-cyanoethyl)tet-*a* and the crystal structure of its copper(II) complex

M. McCann, M. T. Casey, **M. Devereux,** M. Curran and **V. McKee**	2321	Synthesis, X-ray crystal structure and catalytic activity of the manganese(II) *E*-urocanic acid (*E*-uroH) complex $[Mn(E\text{-uro})_2(H_2O)_4]$
H. Schumann	2327	Dynamic ^7Li NMR investigation of dianionic dibenzotetraaza [14]annulene derivatives in solution
D. M. Hong, **H. H. Wei,** L. L. Gan, G. H. Lee and Yu Wang	2335	Synthesis, structure and magnetic properties of mononuclear $[Mn(2,2'\text{-bipyrimidine})_2(H_2O)_2][ClO_4]_2$ and polynuclear $[Mn(2,2'\text{-bipyrimidine})(NO_3)_2]$ complexes
D. J. Darensbourg, M. W. Holtcamp and J. H. Reibenspies	2341	Structural characterizations of coordination complexes of *bis*-triphenylphosphine copper(I) dicarboxylates
A. A. Cole, S. P. Mattamana and **R. Poli**	2351	Four-legged piano stool molybdenum(II) compounds without carbonyl ligands—3. Cyclopentadienyl and indenyl complexes containing the tridentate ligand $Ph_2PCH_2CH_2P(Ph)CH_2CH_2PPh_2$(triphos) via reduction of molybdenum(III) precursors
S. Achar, **R. J. Puddephatt** and J. D. Scott	2363	Synthesis and polymerization of alkylplatinum complexes containing two vinyl groups
W. Chiang, D. Vanengen and **M. E. Thompson**	2369	Second-order non-linear optical properties of Fe(SALEN) complexes
T. A. George, D. N. Kurk and J. Redepenning	2377	Electrochemical cleavage of the nitrogen–nitrogen bond in hydrazido(2-) complexes of molybdenum: formation of ammonia
R. W. Hay and N. Govan	2381	The reactivity of metal-hydroxo nucleophiles and a range of bases in the hydrolysis of the phosphate triester 2,4-dinitrophenyl diethyl phosphate
M. Motevalli, D. Shah, S. A. A. Shah and **A. C. Sullivan**	2387	A novel route to oxovanadium halides. Synthesis and X-ray structures of $VOCl_2 \cdot 3Py$ and $VO_2Cl \cdot 2Py$
A. A. Isab and H. P. Perzanowski	2397	^1H, ^{13}C and ^{199}Hg NMR studies of the —NHCS-containing ligands with mercuric halides
P. E. Fanwick, **I. P. Rothwell** and C. E. Kriley	2403	Isolation of a new series of η^2-olefin complexes of tungsten(IV) containing cyclometallated 2,6-diphenylphenoxide ligation
H. N. Aliyu, **R. D. Gillard,** J. D. Honeywill, P. Lightfoot and J. Rocha	2409	Adducts between silver nitrate and di-iodo compounds, and some analogues
Hao Jian-Min	2421	Relationship between the dehydration temperature of Boehmite and the imperfection structure of γ-alumina
R. Boča and H. Elias	2425	Lability of the metal–water bond in pentamethylcyclopentadienyl bipyridine aqua complexes of cobalt, rhodium and iridium: a molecular orbital study
B. C. Paul and H. K. Das	2433	Synthesis of some novel complexes of ruthenium(II) containing aromatic aldehyde and other monodentate ligands and some of them catalysed for aerobic oxidation of triphenylphosphine
F. Basuli, P. Chattopadhyay and **C. Sinha**	2439	Cyclopalladation of thio-substituted benzylideneanilines and their spectral characterization
H. Aneetha, J. Padmaja and **P. S. Zacharias**	2445	Synthesis, characterization and catalytic activity of dinuclear iron(III) and ruthenium(III) complexes
Li-Cheng Song, Ji-Quan Wang, Qing-Mei Hu and Xiao-Ying Huang	2453	The first Mo_4S_2 cluster compound containing functionally substituted cyclopentadienyl ligand via a new type of reaction. X-ray crystal structure of $[(\eta^5\text{-}MeO_2CC_5H_4)_4Mo_4(\mu_3\text{-}S)_2(\mu\text{-}CO)_4]$

P. D. Beer, A. R. Graydon and L. R. Sutton — 2457 — Luminescent anion recognition: selective induced emission by binding of dihydrogenphosphate

C. Dowling and **G. Parkin** — 2463 — Elaboration of the bis(pyrazolyl)hydroborato ligand [Bp^{Bu^t,Pr^i}] into the NNO donor ligand, [(MeO)Bp^{Bu^t,Pr^i}]: structural characterization of a complex in which the [(MeO)Bp^{Bu^t,Pr^i}] ligand models the binding of zinc to the peptide backbone in thermolysin

2467 — Erratum

Announcements

I — Polyhedron Symposium-in-Print

II — Annual Polyhedron Publication Award

NUMBER 15

iii — Contributors to this issue

iv — Deposition of crystallographic data

POLYHEDRON REPORT NO. 60

I. Haiduc and **D. B. Sowerby** — 2469 — Stereochemical aspects of phosphor-1,1-dithiolato metal complexes: coordination patterns, molecular structures and supramolecular associations in dithiophosphinates and related compounds

D. Fregona, R. Graziani, **G. Faraglia,** U. Caselato and S. Sitran — 2523 — Palladium and platinum complexes with N,N-dimethylselenourea

K. Selvakumar and **S. Vancheesan** — 2535 — Synthesis and characterization of cyclopalladated binuclear complexes of benzylamines

R. M. Ramadan, M. F. El-Shahat and A. S. Attia — 2545 — Synthesis and characterization of *cis*- and *trans*-bis(chrysenesemiquinonemonoxime)dicarbonyltetraoxodimolybdenum(V) complexes

Tan-Yun Cheng, M. R. Smith III, J. M. Dysard, J. Y. Ali and **G. L. Hillhouse** — 2551 — Reactions of [$W(NH{=}NR)(CO)_2(PPh_3)_2^+$][$PF_6^-$] with azide and amines that occur without displacement of the NH=NR ligand

F. R. Lemke and C. Chaitheerapapkul — 2559 — Silyl and bis(silyl)hydride complexes of ruthenium: effect of ancillary groups on the oxidative addition of Si–H bonds

R. D. Adams, R. Layland, M. Danot and C. Payen — 2567 — A new mixed metal titanate: the synthesis and characterization of $Ba_2Fe_2Ti_4O_{13}$

V. M. Ugalde-Saldivar, **M. E. Sosa-Torres** and M. L. Tobe — 2573 — An unusual, very rapid, stopped-flow base hydrolysis of the *α,β-anti*-[Cr(Picdien)Cl]$(ClO_4)_2$[(Picdien) = 1,9-bis(2-pyridyl)-2,5,8-triazanonane]

T. M. Klapötke, P. S. White, and I. C. Tornieporth-Oetting — 2579 — Reaction of hydrazinium azide with sulfuric acid: the X-ray structure of $[N_2H_6][SO_4]$

Jing-Kun Zhang, Ze-Min Zhang, Ao Yu, Shu-Lan Zhao, Wei-Dong Zhang and Zheng-Zhi Zhang — 2583 — Mössbauer study of a new organometallic tetradentate ligand *trans*, *trans*-$Fe_2[\mu$-$(Ph_2P)_2$Py-P,P$]_2(CO)_6$

D. Kovala-Demertzi, A. Domopoulou, M. A. Demertzis, **J. Valdés-Martínez,** S. Hernández-Ortega, G. Espinosa-Pérez, **D. X. West,** M. M. Salberg, G. A. Bain and P. D. Bloom — 2587 — Structures and spectral properties of palladium(II) complexes of 2-acetylpyridine *N*(4)-dimethylthiosemicarbazone

D. M. Baird, F. L. Yang, D. J. Kavanaugh, G. Finness and K. R. Dunbar — 2597 — Ligand effects on the $\delta \rightarrow \delta^*$ band energies and intensities in a series of diimine complexes of dimolybdenum

Yu Tang, **Xinmin Gan,** Weisheng Liu, Ning Tang, Minyu Tan and Kaibei Yu — 2607 — Synthesis, characterization and structure of the complexes of lanthanide nitrates with 1,8-bis(quinolyloxy)-3,6-dioxaoctane

Qing-Lian Wang, Shao-Nong Chen, Xin Wang, Guan-Min Wu, **Wen-Hua Sun,** Han-Qing Wang and Shi-Yan Yang — 2613 — Preparation and crystal structure of $[(\eta^5\text{-}C_5H_4CH_3)MoFeCo(CO)_6(\mu,\eta^4\text{-}Ph_2PCH_2CH_2PPh_2)(\mu_3\text{-}S)]$

Xianglin Jin, Kaluo Tang, Shaojuan Jia and Youqi Tang — 2617 — Synthesis and crystal structure of a polymeric complex $[S_4Cd_{17}(SPh)_{24}(CH_3OCS_2)_{4/2}]_n \cdot nCH_3OH$

Chan-Cheng Su and Shin-Yi Chiu — 2623 — Electronic and bonding properties of mixed-ligand pyridine-2,6-dicarboxylate copper(II) complexes: molecular structures of [Cu(4-dimethylaminopyridine)(pyridine-2,6-dicarboxylato)] and [Cu(*N*-methylimidazole)(pyridine-2,6-dicarboxylato)(0.5H_2O)]

Jian Gao, Shu-Lin Ma, **Cheng-Yong Jin** and Dai-Zheng Liao — 2633 — Novel antiferromagnetic dinuclear complexes of nickel(II), manganese(II) and cobalt(II) with diphenato as bridging ligand: synthesis, spectra and magnetism

F. D. Rochon, R. Melanson and Pi-Chang Kong — 2641 — Synthesis and crystal structures of nitrido diphosphinoethane technetium(V) complexes

Tay-Ning Hong, Yeong-Horng Sheu, Keh-Wen Jang, **Jyh-Horung Chen,** Shin-Shin Wang, Ju-Chun Wang and Sue-Lein Wang — 2647 — A new synthesis of acetato porphyrinato indium(III) from indium(III) oxide and X-ray crystal structures of In(tpyp)(OAc) and In(tmpp)(OAc)

Shuzhong-Zhan, **Qingjin-Meng,** Xiaozeng-You, Guangwei Wang and Pei-Ju Zheng — 2655 — The properties, crystal and molecular structure of *cis*-dicyano-bis(1,10-phenanthroline)iron(II) trihydrate

2659 Erratum

Announcements

I Polyhedron Symposium-in-Print

II Annual Polyhedron Publication Award

NUMBER 16

iii Contributors to this issue

iv Deposition of crystallographic data

Rong Cao, **Maochun Hong,** Feilong Jiang, Beisheg Kang, Xiulan Xie and Hanqin Liu — 2661 — Syntheses of palladium(II) complexes with thiolate and phosphine ligands. X-ray crystal structures of $[Pd(tdt)(PPh_3)_2] \cdot C_2H_4Cl_2$ and $[Pd_2(Hmp)_2(PPh_3)_2Cl_2]$

Xiang Shi Tan, **Wen Xia Tang** and Jie Sun — 2671 — Synthesis, structure and magnetic properties of a new manganese (III) dimer $[Mn_2(\mu\text{-}OCH_3)_2(sal)_2(CH_3OH)_4]$ bridged by two μ-OCH_3 groups

Zhong Xinhua, Huang Jiesheng, Sheng Panwen and **Feng Yaoyu** — 2677 — A new method of preparation of iron(II) porphyrin complexes—isolation and characterization of amine complexes of ferrous porphyrin

N. Korber and J. Daniels — 2681 — Synthesis and crystal structure of $(NEt_3Me)_2CsP_{11} \cdot 5NH_3$

R. P. Kamalesh Babu, **S. S. Krishnamurthy** and M. Nethaji — 2689 — Organometallic chemistry of diphosphazanes—13. Palladium complexes of unsymmetrical disphosphazanes $Ph_2PN(Pr^i)PYY'$

G. M. Spencer, **J. L. Wardell** and J. H. Aupers — 2701 — Preparation of [tris(1,3-dithiole-2-thione-4,5-dithiolato)antimonate(1^-)] complexes, $[Sb^v(dmit)_3]^-$. Crystal structure of the 1,4-dimethylpyridinium salt

F. Labrize, **L. G. Hubert-Pfalzgraf,** J.-C. Daran, S. Halut and P. Tobaly — 2707 — Synthesis and characterization of volatile mixed-metal yttrium–barium, barium–copper and yttrium–copper β-diketonato-fluoroisopropoxides. Molecular structure of $BaY_2[\mu\text{-}OCH(CF_3)_2]_4(thd)_4$

W. Levason, S. R. Preece and C. S. Frampton — 2719 — A comparison of *cis*- and *trans*-cobalt(III) complexes with phosphorus and arsenic ligands; the effect of stereochemistry on redox and spectroscopic properties

O. A. Babich, **V. N. Kokozay** and V. A. Pavlenko — 2727 — Direct synthesis and crystal structure of the polymeric thiocyanate complexes of copper(I)

Peng-Chuan Cheng, I-Chih Liu, Tay-Ning Hong, **Jyh-Horung Chen,** Shin-Shin Wang, Sue-Lein Wang and Jing-Chie Lin — 2733 — Synthesis and characterization of phosphorus complexes of *meso*-tetraphenylporphyrin (tpp), and X-ray crystal structure of $[P(tpp)(OCH(CH_3)_2)_2]^+Cl^-$

J. A. Castro, J. Romero, J. A. García-Vazquez, **A. Sousa, J. Zubieta** and Yuanda Chang — 2741 — Electrochemical synthesis and crystal structure of bis(4-methyl-6-trifluoromethylpyrimidine-2-thionate) cadmium(II)

P. Gonzàlez-Duarte, R. March, J. Pons, W. Clegg, L. Cucurull-Sànchez, A. Álvarez-Larena and J. F. Piniella — 2747 — Synthesis and X-ray structure of zinc(II) derivatives of esters of 2-pyridinecarboxylic acid

G. Marangoni, B. Pitteri, V. Bertolasi, V. Ferretti and P. Gilli — 2755 — Crystal structure of bis-cationic square planar platinum(II) complexes containing the tridentate chelate ligand 2,6-bis (methylthiomethyl)pyridine and *para*-substituted pyridines

S. Bhambri and **D. A. Tocher** — 2763 — Synthesis and characterization of (arene)ruthenium(II) poly (pyrazolyl)borate and poly(pyrazolyl)methane complexes

Yan-Ni Tian, **Pin Yang,** Hong-Fei Wang, Yun-Long Feng, Shi-Xiong Liu and Jin-Ling Huang — 2771 — Synthesis, molecular structure and tumour-inhibiting properties of cobalt(II) and nickel(II) complexes of 2,2′-diamine-4,4′-bithiazole. Crystal structure of the *cis*-dichlorobis(2,2′-diamine-4,4′-bithiazole)cobalt(II)

Y. Fuchita, K. Takahashi, N. Kanehisa, K. Shinkimoto, **Y. Kai** and N. Kasai — 2777 — The crystal structure of the unique diaryltripalladium(II) complex, $[Pd_3(C_6H_3Me_2)_2(\mu\text{-}O_2CMe)_4\{S(CH_2CHMe_2)_2\}_2]$

M. Sakhawat Hussain, A. R. Al-Arfaj, M. N. Akhtar and A. A. Isab — 2781 — $[\{(CEP)_2Au\}^+\{Au(CN)_2\}^-]$: a compound with gold–gold bonds

Zhi Hui Zhang, Xian He Bu, Zhi Ang Zhu and Yun Ti Chen — 2787 — Synthesis, crystal structure and spectroscopic characterization of the complex of palladium(II) with tris(2-pyridylmethyl) amine

Fung-E Hong, I-Ren Lue, Shih-Chun Lo, Yaw-Cherng Yang and Chu-Chieh Lin — 2793 — Reactions of $Na[Mo(CO)_3(\eta^5\text{-}C_5H_5)]$ towards $CoCl(PPh_3)_3$ and $CoCl(P(OMe)_3)_5$: X-ray crystal structures of $[MoCo(CO)_6(PPh_3)(\eta^5\text{-}C_5H_5)]$ and $[Mo(CO)_3(P(OMe)_3(\eta^5\text{-}C_5H_5)]_2$

M. Motevalli, **P. O'Brien,** J. R. Walsh and I. M. Watson — 2801 — Synthesis, characterization and X-ray crystal structures of asymmetric bis(dialkyldithiocarbamates) of zinc: potential precursors for ZnS deposition

Communication

S. D. Looman, S. Giese, A. M. Arif and **T. G. Richmond** 2809 π-Basicity of the (diamine)tricarbonyltungsten(0) fragment stabilizing η^2-aldehyde complexes at tungsten(0)

Announcements

I Polyhedron Symposium-in-Print

II Annual Polyhedron Publication Award

NUMBER 17

iii Contributors to this issue

iv Instructions to contributors

J. O. Dzięgielewski, B. Machura and **T. J. Bartczak** 2813 The crystal and electronic structure of the complex $[ReCl_4(PPh_3)_2]$

M. Kidwai and Y. Goel 2819 Microwave induced novel synthetic route to organomercurials

C. Diaz V. and C. Leal 2825 New complexes [CpFe(DPPE)thiophenes]PF_6

H. D. B. Jenkins 2831 Thermochemistry and energetics of the gaseous tetrabromophosphonium cation, PBr_4^+

W. P. Griffith, **A. J. P. White** and D. J. Williams 2835 Complexes of boron with catechol: the X-ray crystal structure of Meulenhoff's salt, $2\{(pyH)[B(cat)_2]\cdot H_2cat\}\cdot H_2O$

D. Stalke, Feng-Quan Liu, and **H. W. Roesky** 2841 Synthesis and X-ray crystal structure of an asymmetric mixed metal $[\{(\eta^5\text{-}C_5H_4SiMe_3)TiF_2\}_5AlF_3(THF)]$ complex containing an $AlTi_5F_{13}$ core

P. Byers, G. Y. S. Chan, M. G. B. Drew, **M. J. Hudson** and C. Madic 2845 Concomitant binding of a nickel(II) cation and a nitrate anion by the ligand 2,4,6-tri-2-pyridyl-1,3,5-triazine (TPTZ): the crystal structure of $[Ni(HTPTZ)(H_2O)_3]^{3+}\cdot 3NO_3^-\cdot H_2O$

T. Kräuter and **B. Neumüller** 2851 Triphenylphosphane complexes of copper(I): structural and ^{31}P NMR investigations

G. Hogarth and T. Norman 2859 Linking metal centres with bis(diphenylphosphino)acetylene (DPPA): syntheses and molecular structures of $[\{Mo(CO)_4(\mu\text{-DPPA})\}_2]$ and $[\{Mo(CO)_3\}_2(\mu\text{-DPPA})_3]$

M. Shakir, O. S. M. Nasman, A. K. Mohamed and S. P. Varkey 2869 Self-condensation of *ortho*-aminobenzoic acid in the presence of metal ions

A. Drljaca and **L. Spiccia** 2875 Early stages of the hydrolysis of chromium(III) in aqueous solution—XI. Kinetics of formation of hexamer from trimer and tetramer from monomer and trimer

T. M. Santos, J. D. Pedrosa de Jesus, F. M. L. Amado, P. M. Domingues, M. G. Santana-Marques and A. J. Ferrer-Correia 2887 Characterization of α-amino acidato chromium(III) complexes by fast atom bombardment mass spectrometry

Chunhua Yan, Yawen Zhang, Biaoguo Li, Tianzhu Jin and Guangxian Xu 2895 Coordination chemistry of scandium—I. Synthesis and crystal structure of scandium six-coordinate glycine complex $[Sc_2(Gly)_6(ClO_4)_6]_n$

M. Sekota and **T. Nyokong** 2901 Cyclic voltammetry and spectroelectrochemistry of osmium phthalocyanines in aqueous and non-aqueous solvents

F. Jaber, F. Charbonnier and **R. Faure** 2909 Preparation and crystal structure of tetraaqua-bis(hydrogenopyridine-2,3-(dicarboxylate)bis(pyridine-2,3-dicarboxylate) hexa silver(I) $[Ag_6(C_7H_4NO_4)_2(C_7H_3NO_4)_2(H_2O)_4]_n$

Li-Cheng Song, Jin-Yu Shen, Qing-Mei Hu, Hui Liu and Xio-Ying Huang — 2915 — Synthesis, reactions and characterization of homo- and heterobimetallic Mo/W μ-alkyne complexes containing functionally substituted cyclopentadienyl ligands: the crystal structure of $[\eta^5\text{-}MeO_2CC_5H_4(CO)_2MoW(CO)_2C_5H_4Et\text{-}\eta^5](\mu\text{-}C_2H_2)$

R. Bhawmick and **P. Bandyopadhyay** — 2923 — Cyclopalladated arylsulfides and sulfoxides: synthesis, characterization and reactivity toward *m*-chloroperbenzoic acid

Xian-Ru Sun, Ming-Ming Miao, Peng Cheng, **Dai-Zheng Liao,** Zong-Hui Jiang and Geng-Lin Wang — 2927 — First oxalate-bridged dinuclear Mn^{II}-$V^{IV}O$ complexes: synthesis and magnetic properties

P. K. Sinha, J. Chakravarty and **S. Bhattacharya** — 2931 — Ruthenium phenolates: synthesis, characterization and reactivities of a group of salicylaldiminato and 2-(arylazo)phenolato complexes of ruthenium

T. Głowiak, **J. Legendziewicz,** E. Huskowska and P. Gawryszewska — 2939 — Ligand chirality effect on the structure and its spectroscopic consequences in $[Ln_2(Ala)_4(H_2O)_8](ClO_4)_6$ crystals

B. S. Manhas and **S. B. Kalia** — 2949 — Anomalous magnetic behaviour of nitrosylbis(carbodithioato) iron(I) compounds

J. Camus, A. Meghea and **J. R. Anacona** — 2953 — EPR spectra of copper complexes with quinoxalinic and naphthoquinonic ligands

S. M. Kagwanja, J. C. Jeffery, C. J. Jones and **J. A. McCleverty** — 2959 — Reaction of molybdenum mononitrosyl halides with Schiff bases: hydrolysis of azomethine links, formation of monometallic tris(3,5-dimethylpyrazolyl)borato phenolato complexes containing "free" aldehyde groups, and the X-ray structure of $[Mo(NO)\{HB(3,5\text{-}Me_2C_3HN_2)_3\}Cl\{OC_6H_4(3\text{-}CHO)(4\text{-}OH)\}]$

Communications

K. Ishihara and **Y. Kitamura** — 2969 — Reinvestigation of the activation volume for the base hydrolysis reaction of *trans*-dichloro[(*RSSR*)-1,4,8,11-tetraazacyclotetradecane]cobalt(III) cation

A. Cabrera, N. Rosas, C. Alvarez, P. Sharma, A. Toscano, M. Salmón and J. L. Arias — 2971 — The crystal structure of a novel complex $[Sm(HMPA)_3(H_2O)_4]^{3+}3[I^-]$ formed in the reductive cyclodimerization of linear α,β-unsaturated ketones by SmI_2

Announcements

I — Polyhedron Symposium-in-Print

II — Annual Polyhedron Publication Award

NUMBER 18

iii — Contributors to this issue

iv — Instructions to contributors

Z. Trávníček, R. Pastorek, Z. Šindelář, J. Kameníček and J. Marek — 2975 — Reactions of bis(isopropylxanthato)nickel(II) with nitrogen or oxygen donor ligands—III. X-ray crystal structure of the complex with pyrazine

P. D. Beer, S. W. Dent, N. C. Fletcher and T. J. Wear — 2983 — Anion and cation recognition by new mono- and bis-ruthenium(II) bipyridyl crown ether receptor molecules

Ji-Tao Wang, Xiao Feng, Liang-Fu Tang and Yue-Ming Li — 2997 — Studies on the reaction of acetylferrocene with aromatic aldehydes in the presence of β-cyclodextrin

R. C. B. Copley, P. W. Dyer, **V. C. Gibson,** J. A. K. Howard, E. L. Marshall, Wenying Wang and B. Whittle — 3001 — Molybdenum(VI) complexes containing differing *cis* multiply-bonded ligands: some structural consequences of competing π-donor groups

N. Lucena, J. Casabó, **L. Escriche,** G. Sánchez-Castelló, F. Teixidor, R. Kivekäs and R. Sillanpää — 3009 — Synthesis and characterization of cyclopalladated and non-cyclopalladated complexes of ligands containing the 1,3-bis(thiomethyl)benzene unit

Botao Zhuang, Guohua Pan and Liangren Huang — 3019 — New dinuclear molybdenum(0)–SR compound containing a "butterfly" type MoS_2Mo core: synthesis, structure and cyclic voltammetry of di-(*o*-methylphenthiolato)dimolybdenum(0) octacarbonyl dianion, $[Mo_2(o\text{-}CH_3\text{—}C_6H_4\text{—}S)_2(CO)_8]^{2-}$

K. Mochida, R. Hata, M. Shimoda, F. Matsumoto, H. Kurosu, A. Kojima, M. Yoshikawa, S. Masuda and Y. Harada — 3027 — Ionization potentials of oligogermanes and polygermanes

J. A. Laske Cooke, H. Rahbarnoohi, A. T. McPhail, **R. L. Wells** and P. S. White — 3033 — Reactions of phenylaluminium compounds with $E(SiMe_3)_3$ (E = P or As): X-ray crystal structures of $Ph_3Al \cdot E(SiMe_3)_3$ (E = P or As) and $Ph_2(Cl)Al{\cdot}P(SiMe_3)_3$

F. Bottomley and Sor-Koon Goh — 3045 — An investigation of the M—A—M angle in compounds of general formula $[ML_n]_2(\mu\text{-A})$

F. D. Rochon, R. Melanson and M. Andruh — 3075 — The influence of different N-substituted diethylenetriamine ligands on the aggregation of copper(II) monoacetato complexes

T. A. Budzichowski, **M. H. Chisholm,** K. Folting and K. S. Kramer — 3085 — $Mo_2(O)(OCH_2{}^tBu)_4(PMe_3)_4$. Preparation and characterization of a partial hydrolysis product of $Mo_2(OCH_2{}^tBu)_6$

Wenjia Xia, **R. H. Hill, A. H. Klahn,** C. Leiva and G. E. Buono-Core — 3093 — The mechanism of the photoreaction of *cis*-$(\eta^5\text{-}C_5Me_5)Re(CO)_2I_2$ with $P(OMe)_3$

S. P. Summers, K. A. Abboud, W. S. Brey, B. Bechtel, R. C. Palenik and **G. J. Palenik** — 3101 — Tetraaqua[2,6-diacetylpyridinedi(acetic acid hydrazone)] yttrium(III) nitrate trihydrate. Synthesis, crystal structure and ^{89}Y, ^{13}C and ^1H NMR

L. Piao, **F. Kai,** M. Hirohata, Y. Matsuoka and Hu Huang — 3107 — Linkage isomerism in Al^{III} complexation with azo-system multidentate ligands

I. P. Parkin, A. V. Komarov and Q. Fang — 3117 — Alternative solid state routes to mixed metal oxides ($LnCrO_3$, $LnFeO_3$)

R. Krishna Kumar, **G. Aravamudan,** M. R. Udupa and M. Seshasayee — 3123 — Synthesis and structure of the isomorphous bromo- and chlorodiethyldithiocarbamatotellurium(II), $Te\{(C_2H_5)_2NCS_2\}X$ (X = Br, Cl)

V. Jorík, M. Koman, D. Makáňová, D. Mikloš, A. Broškovičová and **G. Ondrejovič** — 3129 — Fine stereochemical effects in tetranuclear mixed-halide copper(II) complexes: the structure of $Cu_4OBr_3Cl_3(OPPh_3)_4$

E. Reguera, A. Dago, A. Gómez and J. F. Bertrán — 3139 — Structural changes in insoluble metal nitroprussides on ageing

Communications

D. S. Bohle, P. A. Goodson and B. D. Smith — 3147 — Synthesis, structure and ligand exchange reactions of Ru(TTP)(NO)(OMe)

R. W. Miller and **J. T. Spencer** — 3151 — Small heteroborane cluster systems—7. Reaction of phospha-alkyne ^{t}BuCP with bis(acetonitrile)decaborane(12). A new synthetic route to a large phosphaborane cluster compound

Announcements

I Polyhedron Symposium-in-Print

II Annual Polyhedron Publication Award

NUMBER 19

iii Contributors to this issue

iv Instructions to contributors

Gang Wei, M. Maeder and **G. A. Lawrance** — 3157 — Isolation of and metal ion selection by geometric isomers of a pendant-arm macrotricyclic hexaamine

R. Hay-Motherwell, **G. Wilkinson,** T. K. N. Sweet and M. B. Hursthouse — 3163 — Synthesis and X-ray crystal structure of $[Li(C_4H_8O)_4][Ni(2,4,6\text{-}Me_3C_6H_2)_3]$

M. Nunn, M. J. Begley, **D. B. Sowerby** and I. Haiduc — 3167 — Complexes of organoantimony(III) and (V) halides with nitrogen donors

D. J. Williams, A. M. Z. Slawin, J. R. Phillips and **J. D. Woollins** — 3175 — Mixed-ligand platinum(II) complexes of $[N(SPR_2)_2]^-$ (R = Ph, OPh)

G. Ricciardi, L. De Benedetto and **F. Lelj** — 3183 — Synthesis, characterization and reactivity of the bis[2,3,7,8,12,13,17,18-octakis(ethylthio)-5,10,15,20-tetraazaporphyrinato] zirconium(IV) complex

G. R. Willey, P. R. Meehan, P. A. Salter and W. Errington — 3193 — Yttrium(III) chloride solvates: synthesis and structural characterisation of $YCl_3(H_2O)_2(MeCN)_2$

G. Swarnabala and **M. V. Rajasekharan** — 3197 — Influence of intermolecular interactions on coordination geometry–crystal and molecular structure of $Ag(dmp)NO_3 \cdot 2H_2O$ (dmp = 2,9-dimethyl-1,10-phenanthroline)

A. Gelling, **K. G. Orrell,** A. G. Osborne, V. Šik, M. B. Hursthouse and S. J. Coles — 3203 — Trimethylplatinum(IV) halide complexes of pyrazolylbipyridyl ligands. Crystal structure of [PtIMe$_3${6-(3,5-dimethylpyrazol-1-yl)-2,2′-bipyridine}]

A. Mylonas, **E. Papaconstantinou** and V. Roussis — 3211 — Photocatalytic degradation of phenol and *p*-cresol by polyoxotungstates. Mechanistic implications

Yu Tang, Yinchang Feng, **Xinmin Gan,** Minyu Tan and Kaibei Yu — 3219 — Preparation and structure of [bis(8-quinolyloxyethyl)ether$\cdot H_3^+O]_3[La(NO_3)_6]$: a hexanitrato lanthanum complex of a hydronium ion podand complex cation

J. A. Darr, **D. M. P. Mingos,** D. E. Hibbs, **M. B. Hursthouse** and K. M. A. Malik — 3225 — A volatile erbium(III)/*β*-diketonate compound symmetrically bridged by tetraglyme

G. Ferguson, J. N. Low, M. Quirós-Olozábal, J. M. Salas-Peregrín, F. Hueso-Ureña and **M. N. Moreno-Carretero** — 3233 — Mixed complexes of 6-aminouracil derivatives: synthesis, spectral properties and crystal structure of 6-amino-1,3-dimethyl-5-nitrosouracilato (N^5,N^6)-2,2′-bipyridine(N,N′)-ethanol(O)-copper(II) nitrate

Hua-Kuan Lin, Shou-Rong Zhu, Zong-Xin Gu and Yun-Ti Chen — 3241 — Calorimetric determination of the heats of coordination of competitive ternary mixed-ligand complex compounds. Copper(II)-12-(2′-hydroxy-3′-methoxy-benzyl)-1,4,7,10-tetraazacyclotridecane-11,13-dione-α-aminoacids and 5-substituted 1,10-phenanthrolines system

R. J. Forder and **G. Reid** — 3249 — Synthesis and redox properties of *trans*-$[MBr_2(L)_4]$ (M = Ru, Os, L = $PPhH_2$, PPh_2H; M = Os, L = PCy_2H) and the crystal structure of *trans*-$[OsBr_2(PPh_2H)_4] \cdot Et_2O$

S. Einloft, F. K. Dietrich, **R. F. De Souza** and **J. Dupont**	3257	Selective two-phase catalytic ethylene dimerization by Ni^{II} complexes/$AlEtCl_2$ dissolved in organoaluminate ionic liquids
M. J. Taylor, J. A. Grigg and I. H. Laban	3261	Triol borates and aminoalcohol derivatives of boric acid: their formation and hydrolysis
E. Escrivà, M. Sanaú, J.-V. Folgado, J. García-Lozano and A. M. Aarif	3271	Structural, spectroscopic and magnetic characterization of aquabis(crotonato)bis(imidazole)copper(II)
Zhenyang Lin and I. D. Williams	3277	Structure and bonding in face- and edge-bridged octahedral transition metal clusters
T. A. Harris, T. M. McKinney, Wengan Wu, P. E. Fanwick and **R. A. Walton**	3289	Reactions of the polyhydride complex $ReH_7(dppe)$ (dppe = $Ph_2PCH_2CH_2PPh_2$) with pyridine-2-carboxylic acid, 1-isoquinolinecarboxylic acid, 2-hydroxy-6-methylpyridine and 2-mercaptoquinoline. Synthesis and structural characterization of seven-coordinate monohydrido complexes of rhenium(III)
J. J. Fernandes Alves and **D. W. Franco**	3299	Acrylonitrile and cyanoacetic acid complexes of Ru^{III} and Ru^{II} amines: an analysis of the σ- and π-component relevance in the Ru^{II}—NCR bond
D. M. Hoffman, D. Lappas and D. A. Wierda	3309	Structure determination of a rhenium trimethylsilylmethyl acyl complex and hydrolysis of the carbon–silicon bond
Yang Jie Wu, Yuan Hong Liu, Xiu Ling Cui, Han Zhen Yuan and Xi An Mao	3315	Isomerism of the cyclopalladated ferrocenylketimines
Ren-Gen Xiong, Jing-Lin Zuo, **Xiao-Zeng You** and Xiao-Ying Huang	3321	Synthesis and X-ray structure of the first lanthanide 2-mercaptopyridine N-oxide complex, *tris*-(1-hydroxy-2(1H)-pyridinethionato-O,S) bis [sulfinylbis(methane)] samarium(III)
Jin-Yu Li, Hao Xu, Jian-Zhong Zou, **Zheng Xu,** Xiao-Zeng You and Kai-Pei Yu	3325	Synthesis, molecular structure and magnetic properties of $[Mn_{11}CrO_{12}(CH_3CO_2)_{16}(H_2O)_4]\cdot 4H_2O$ with a S = 8 ground state
M. A. Ali, K. K. Dey, M. Nazimuddin, F. E. Smith, R. J. Butcher, J. P. Jasinski and J. M. Jasinski	3331	The preparation and characterization of some copper(II) complexes of the 6-methyl-2-formylpyridine thiosemicarbazone and the X-ray crystal structure of the chloro(6-methyl-2-formylpyridinethiosemicabazonato) copper(II) complex
M. A. Fedotov, E. P. Samokhvalova and **L. P. Kazansky**	3341	^{17}O and ^{183}W NMR diamagnetic and paramagnetic shifts in heterodecatungstates $XW_{10}O_{36}^{n-}$ (X = Ln, Th, U) in aqueous solutions
P. Kundu, M. K. Saha, S. Sen, **S. Mitra,** S. Kumar, D. Banerjee and R. Bhattacharya	3353	Thermally induced electron-transfer reactions of heterometallic dinuclear complexes in the solid state
R. Roy, P. Chattopadhyay, **C. Sinha** and S. Chattopadhyay	3361	Synthesis, spectral and electrochemical studies of arylazopyridine complexes of palladium(II) with dioxolenes
A. Mitra, T. Banerjee, P. Roychowdhury, **N. Saha** and S. Das	3371	X-ray crystal structure of bis-(*p*-nitroacetophenone-4,6-dimethyl-2-pyrimidyl hydrazone) copper(I) perchlorate
M. J. Almond, M. G. B. Drew, S. Morris and D. A. Rice	3377	A single crystal X-ray diffraction study of yttrium tartrate hydrate $[Y(C_4H_4O_6)(C_4H_5O_6)\cdot 2.5H_2O]$
G. Y. S. Chan, **M. G. B. Drew,** M. J. Hudson, N. S. Isaacs, P. Byers and C. Madic	3385	Complexation of 2,4,6-tri-*tert*-butylpyridine-1,3,5-triazine ligand (L) with the cerium(IV) nitrate anion; encapsulation of protonated $[LH_n]^{n+}$ with the hexafluorophosphate, nitrate and hydroxide anions; formation and crystal structures of $Ce(NO_3)_4L$, $2[LH_3]^{3+}[Ce(NO_3)_5(OH_2)]^-[Ce(NO_3)_5(EtO)]^{2-}2[NO_3]^-[OH]^-$, $2[LH_2]^{2+}[PF_6]^-$ $1.5[BF_4]^-$ $0.5[PO_4]^{3-}$ and $[LH_4]^{4+}[3NO_3]^-[PF_6]^-$

Jusong Xia, Xiuli Zhuang, Zhongsheng Jin and **Wenqi Chen** 3399 Synthesis and crystal structure of $[(C_8H_8)_3(C_6H_5CH_2C_5H_4)Nd_2K(THF)_3]$

Qun Huang, **Xintao Wu,** Tianlu Sheng and Quanming Wang 3405 Syntheses and crystal structures of the heterobimetallic eicosanuclear clusters $[Et_4N]_4[M_8Cu_{12}S_{28}O_4]\cdot DMF$ (M = Mo, W)

R. D. Pizer and C. A. Tihal 3411 Mechanism of boron acid/polyol complex formation. Comments on the trigonal/tetrahedral interconversion on boron

Shan-Ming Kuang, Hui Cheng, Li-Juan Sun, **Zheng-Zhi Zhang,** Zhong-Yuan Zhou, Bo-Mu Wu and T. C. W. Mak 3417 Coordination chemistry of organometallic polydentate ligands. Syntheses of Fe–M complexes using $Fe(CO)_4(Ph_2Ppy\text{-}P)$ [Ph_2Ppy = 2-diphenylphosphino)pyridine] and *trans*-Fe(PhPMepy)$_2$ $(CO)_3$[PhPMepy = 2-(phenylmethylphosphino)pyridine] as a neutral bi- or tridentate ligand

Zhong-Zhi Wu, Wei-Wen Ma, **Zu-En Huang,** Rui-Fang Cai, Zheng Xu, Xiao-Zeng You and Jie Sun 3427 Synthesis and crystal structure of binuclear bis-cyclopentadienyl ytterbium *N*-propyl thiolate $[(C_5H_5)_2Yb(\mu\text{-}SCH_2CH_2CH_3)]_2$

Ya Guang Chen and Jing Fu Liu 3433 Heteropoly complexes containing titanium—I. The complexes with tetrahedral iron or chromium as central atom

Announcements

I Polyhedron Symposium-in-Print

II Annual Polyhedron Publication Award

NUMBER 20

iii Contributors to this issue

iv Instructions to contributors

M. L. B. F. Hereygers, **H. O. Desseyn,** K. A. F. Verhulst, A. T. H. Lenstra and **S. P. Perlepes** 3437 Transition metal complexes of singly and doubly deprotonated 2-thiooxamic acid

T. R. Belderraín, L. Contreras, M. Paneque, **E. Carmona, A. Monge** and C. Ruiz 3453 Bis- and tris(pyrazolyl)borate complexes of the heavier alkaline-earth elements Ca, Sr and Ba

J. Dupont, R. A. P. Halfen, R. Schenato, A. Berger, M. Horner, A. Bortoluzzi and C. Maichle-Mössmer 3465 Methoxy-palladation of allylamines: a facile synthesis of chiral cyclopalladated compounds. X-ray crystal structure of *trans*-$[Pd(CH_2CH(OMe)CH(Me)NMe_2)(Cl)(Py)]$

A. J. Downard, B. O'Sullivan and K. J. Powell 3469 A voltammetric study of the aluminium complexes of catechol and 1,2-dihydroxy-anthraquinone-3-sulfonic acid

J. García-Lozano, M. Sanaú, J.-V. Folgado, E. Escrivà, S. García-Granda, B. Abarca and R. Ballesteros 3481 Interaction between metal ions and zwitterionic species. Crystal and molecular structure and spectroscopic characterization of $[Cu(mtpa)_2(NO_3)_2]$ (mtpa = [2-(3-methyl-1,2,3-triazolo[1,5-a] pyridinio)]acetate)

M. Shakir, A. K. Mohamed and O. S. M. Nasman 3487 Transition metal complexes of 16–18-membered tetraazamacrocycles bearing polyamide groups

W. P. Griffith, R. G. H. Moreea and H. I. S. Nogueira 3493 Lanthanide complexes as oxidation catalysts for alcohols and alkenes

T. R. Belderraín, **M. Paneque,** V. Sernau, **E. Carmona, E. Gutiérrez** and A. Monge 3501 Alkyl and alkaneimidoyl derivatives of nickel(II) that contain the bulky $CH(SiMe_3)_2$ group

M. J. Fernández-Trujillo, B. Szpoganicz, M. Angeles Máñez, L. T. Kist and **M. G. Basallote**	3511	Kinetics and mechanism of formation and decomposition of copper(II) complexes with a binucleating hexaazamacrocycle
Zhi-Xian Zhou, Wen-Chao Zheng, Yan-Zhong Li, Zhi-Hua Mao, Zong-Hua Zhou and Zhou Hong	3519	The crystal structures and spectral behaviour of benzo-15-crown-5 adducts with hydrated lanthanide picrates
D. A. Johnson	3527	An alternative notation for packing and hole occupation in close-packed structures
D. R. Armstrong, D. R. Baker, F. J. Craig, **R. E. Mulvey,** W. Clegg and L. Horsburgh	3533	Benzyl(trimethylsilyl)amidolithium: structural studies by *ab initio* MO and X-ray crystallographic methods, and comparison with the known structures of dibenzyl and bis(trimethylsilyl) analogues
Xi-Meng Wang, **Hong-Sui Sun,** Xiao-Zeng You and **Xiao-Ying Huang**	3543	A novel bonding mode of a deprotonated *syn–anti* 2,2′-dipyridylamine ligand to dimethyl aluminium and dimethyl gallium. Synthesis, characterization and X-ray crystal structure of $Me_2Ga(dpa)$ (dpa = 2,2′-dipyridylamine)
Jing-Lin Zuo, Tian-Ming Yao, **Xiao-Zeng You,** Hoong-Kun Fun and S. Kandasamy	3547	Syntheses, properties and crystal structures of a series of mixtures of DMIT and DMISE metal complexes (DMIT = 1,3-dithiole-2-thione-4,5-dithiolate, DMISE = 1,3-dithiole-2-selone-4,5-dithiolate). Single-crystal ESR study of $[Bu_4N]_2[Cu/Ni(C_3S_{4.4}Se_{0.6})_2]$
M. A. Bennett, A. C. Willis, Lai-Yoong Goh and Wei Chen	3559	Divalent ruthenium complexes containing 1,4,7-trithiacyclononane and cycloocta-1,5-diene (C_8H_{12}) or 1-3:5,6η-cyclooctadienyl (C_8H_{11})
Xiaoqing Wang, Yuyuan Xie and Jie Sun	3569	Synthesis and crystal structure of a novel praseodymium complex with β-alanine: $\{[Pr_2(alanine)_6(H_2O)_4](ClO_4)_6H_2O\}_n$
M. A. S. Goher, N. A. Al-Salem and **F. A. Mautner**	3575	Synthesis, spectral and structural characterization of [NaMn(pyrazinato)$(NCO)_2(H_2O)_2$], a polymeric structure containing $\mu(O,O,N)$-bridging cyanato ligands between manganese and sodium-centred polyhedra
Z. A. Savel'eva, **G. V. Romanenko,** N. V. Podberezskaya and S. V. Larionov	3581	First example of an isolated square-bipyramidal hexabromocuprate(II) anion in the crystal structure of the aminoguanidinium salt $(CH_8N_4)_2[CuBr_6]$
Xiao-Ming Chen, Xiao-Long Feng, Ye-Xiang Tong, Xiao-Hong Zhang and T. C. W. Mak	3585	A novel monomeric manganese(II) carboxylate. Preparation and structure of $Na_2[Mn(Me_3NCH_2CH_2CO_2)_4(H_2O)_2](ClO_4)_4 \cdot 4H_2O$
J. Lisowski, P. Starynowicz, A. Jezierski and Z. Siatecki	3589	Trameric nickel(II) complex with diethyl 1-hydroxyiminobenzylphosphonate
P. K. Baker, S. D. Harris, M. C. Durrant and **R. L. Richards**	3595	Synthesis and characterization of the seven-coordinate complexes $[MI_2(CO)_3\{Ph_2P(S)CH_2P(S)Ph_2\text{-}S,S'\}]$ (M = Mo or W)
J. M. Casas, **J. Forniés,** A. Martín, B. Menjón and M. Tomás	3599	Synthesis and X-ray structure of $[NBu_4][\{Pt(C_6F_5)_2\}_2(\mu\text{-}C_6F_5)_2\{\mu\text{-}Ag(SC_4H_8)\}]$ (SC_4H_8 = tetrahydrothiophene). Evidence of the existence of intramolecular Ag···F interactions in solution and in the solid state
C. Weymann, A. A. Danopoulos, **G. Wilkinson,** T. K. N. Sweet and **M. B. Hursthouse**	3605	Bis(6-tert-butyliminomethyl)phenylamido complexes of divalent Mn, Fe, Co and Ni
I. Déchamps-Olivier, E. Guillon, A. Mohamadou and **J.-P. Barbier**	3617	Coordination of nickel and cobalt with *N*-morpholine or *N*, *N*-diethyl, *N′*-monosubstituted benzoyl thioureas

M.-L. Abasq, C. J. Pickett, **R. L. Richards,** M. Arroyo, J. A. Chamizo, A. Calderón, P. Sosa and H. Torrens — 3623 — Preparation and electrochemistry of thiolate-phosphine complexes of osmium

D. Z. Obadović, J. Kiurski and R. Marinković-Nedučin — 3631 — Electronic states of nickel(II) in spinel-type structures

S. Goswami, W. Kharmawphlang, A. K. Deb and Shie-Ming Peng — 3635 — Monovalent copper complexes of *N*-aryl-pyridine-2-aldimine. Synthesis, characterization and structure

Y. Ihara, M. Yoshizakiya, R. Yoshiyama and K. Sone — 3643 — Solvatochromic mixed-ligand copper(II) chelates with *N*- or *N,N′*-methylated ethylenediamines and tropolonato or hinokitiolato ligands

T. Madrakian, A. Afkhami, J. Ghasemi and **M. Shamsipur** — 3647 — Lithium-7 and sodium-23 NMR studies of complexation of Li^+ and Na^+ ions with 1,10-phenanthroline, 2,2′-bipyridine and 8-hydroxyquinoline in some non-aqueous solutions

C. H. Zambrano, **P. R. Sharp** and C. L. Barnes — 3653 — Synthesis and X-ray crystal structure of an iridium N,O-chelating 1,2-dibenzoyl hydrazido complex

Jia-Cheng Liu, Shuang-Xi Wang, **Liu-Fang Wang,** Feng-Ying He and Xiao-Ying Huang — 3659 — Crystal structure and physicochemical properties of copper(II) complexes with polybenzimidazole ligands

Book Review

S. Cotton — 3665 — Organoderivatives of rare earth elements

Announcements

I — Polyhedron Symposium-in-Print

II — Annual Polyhedron Publication Award

NUMBER 21

iii — Contributors to this issue

iv — Instructions to contributors

POLYHEDRON REPORT NO. 61

M. Cieślak-Golonka — 3667 — Toxic and mutagenic effects of chromium(VI). A review

R. Pastorek, Z. Trávníček, Z. Šindelář, F. Březina and J. Marek — 3691 — Pyrrolidinedithiocarbamate complexes of nickel with phosphorus donor ligands in the coordination sphere

L. Labib, T. E. Khalil, **M. F. Iskander** and L. S. Refaat — 3697 — Organotin(IV) complexes with tridentate ligand-IV organotin(IV) complexes with N-salicylidene- and N-pyridoxylidene-acylhydrazines. Crystal and molecular structure of monochloro-monomethyl [(N-salicylidene-*p*-methoxybenzoylhydrazinato) ONO(2)]tin(IV) methanol

J. B. Baruah — 3709 — Catalytic tri-functionalisation of phenylsilane

J. O. Dzięgielewski, B. Machura and J. Marek — 3713 — The X-ray crystal structure of $[Re(NO)(Ph)Br_3(PPh_3)]$ complex

L. Luaces, **M. R. Bermejo,** J. A. Garcia-Vazquez, J. Romero, **A. Sousa,** R. G. Pritchard, **C. A. McAuliffe,** and Y. Mugnier — 3717 — Electrochemical synthesis of manganese(II) and (III) complexes derived from salicylaldehyde and 2-(2-aminoethyl)pyridine

J. R. Phillips, D. J. Williams, A. M. Z. Slawin and **J. D. Woollins** 3725 The preparation of dialkylthiophosphonatoamines. X-ray structures of $(EtO)_2PSNHC_6H_4NO_2$ and $[(EtO)_2PSNHC_6H_4NO_2]_2PdCl_2$

G. Asgedom, A. Sreedhara, **C. P. Rao** and E. Kolehmainen 3731 Monooxovanadium(V) mixed ligand complexes of Schiff bases and catecholates: synthesis, spectral and electrochemical characterization

J. S. Field, R. J. Haines, B. Warwick and M. M. Zulu 3741 Synthesis and crystal structures of $[Cu_2\{\mu\text{-}(Ph_2P)_2py\}_3][PF_6]_2$ and $[Cu_2\{\mu\text{-}(Ph_2P)_2py\}_2(\eta^2\text{-bipy})_2][PF_6]_2$ [$(Ph_2P)_2py$ = 2,6-bis (diphenylphosphino)pyridine; bipy = 2,2′-bipyridine]

Zhengyin Yang, **Rudong Yang** and Kaibei Yu 3749 Synthesis and crystal structure of a barium complex with pyruvic acid isonicotinoyl hydrazone

Song-Lin Li and **T. C. W. Mak** 3755 A layer-type complex of cadmium(II) chloride perchlorate with triphenylphosphoniopropionate

B. V. Prelesnik, D. D. Radanović, Z. D. Tomić, P. T. Djurdjević, D. J. Radanović and D. S. Veselinović 3761 Preparation and molecular structure of the trans(O_6) isomer of dihydrogen(1,3-propanediamine-N,N′-diacetato-N,N′-di-3-propionato)copper(II) complex. The stereochemistry of copper(II)-edta-type complexes in relation to the structure of the ligand

Zhengyin Yang, **Rudong Yang** and Kaibei Yu 3771 Studies on the synthesis and crystal structure of a magnesium complex with pyruvic acid isonicotinoyl hydrazone

T. Mancilla, L. Carrillo and Ma De La Paz Reducindo 3777 Syntheses of (N → B)phenyl[N-alkylaminodiacetate-O,O′,N] boranes

Je-Yun Kim, **Moo-Jin Jun** and Won-Yong Lee 3787 Catalytic activities of new arsine-dihydrido ruthenium(II) complexes in the homogeneous hydrogenation of aldehyde

Y. Nojima, **M. Nonoyama** and K. Nakajima 3795 Cyclopalladation of *N*-(*p*-thiotoluoyl)pyrrolidine and -piperidine

Seung-Hee Han, Kie-Moon Sung, Seong Huh, **Moo-Jin Jun,** Dongmok Whang and Kimoon Kim 3811 Homogeneous hydrogenation with new cationic ruthenium(II) complexes of $[RuH(CO)(NCCH_3)(PPh_3)_2(diphos)]^+$ and $[RuH(CO)(NCCH_3)(PPh_3)(diphos)]^+$. Crystal structure of $[RuH(CO)(NCCH_3)(PPh_3)(Fe(\eta^5\text{-}C_5H_4PPh_2)_2)][BF_4]$

S. Bouquillon, A. du Moulinet d'Hardemare, N. Chemin, M. Vidal and J. P. Mathieu 3821 Synthesis and characterization of new diisocyanide rhenium complexes. Comparison with the homoleptic ^{99m}Tc complex

Fei Li, Ruifang Song, Qun Liu, Yougang Mao and Songyan Qin 3829 Intramolecular rearrangement of zinc, cadmium and mercury complexes of 1,3-propylenediaminetetraacetic acid in solvent mixtures: NMR study

F. Marchetti, C. Pettinari, A. Cingolani, D. Leonesi, M. Camalli and A. Pifferi 3835 Synthesis and characterization of copper(I) and copper(II) coordination compounds containing 4-acylpyrazolon-5-ato ligands. Crystal structure of [(4-trifluoroacetyl-1-phenyl-3-methyl-pyrazolon-5-ato)bis(triphenylphosphine)copper(I)]

J. Charalambous, **T. A. Thomas,** O. Howarth and R. N. Whiteley 3851 Palladium(II) and platinum(II) complexes of 5-acyl and 5-alkylamino-1,2-benzoquinone-2-oximes

R. G. Ramirez, R. A. Toscano, **C. Silvestru** and I. Haiduc 3857 Studies on inorganic tin diphenyldithiophosphinates. Crystal and molecular structure of *cis*-dichlorobis(diphenyldithiophosphinato)tin(IV)

N. Ya. Turova, A. V. Korolev, D. E. Tchebukov, A. I. Belokon, A. I. Yanovsky and Yu. T. Struchkov 3869 Tantalum(V) alkoxides: electrochemical synthesis, mass-spectral investigation and oxoalkoxocomplexes

M. Fondo, **M. R. Bermejo, A. Sousa,** J. Sanmartín, E. Gómez-Forneas and **C. A. McAuliffe** 3881 Reactivity of manganese(II) complexes of derivatives of 2-methylpyridine-*N*-oxide towards sulfur dioxide

Yang Huawu, **Shi Juen,** Chen Liaorong and Luo Baosheng 3891 Synthesis and structural characterization of the benzimidazolate-bridged binuclear copper(II) complex with N,N′-bis(carboxy-methyl)glycine

C. M. Goff, M. A. Matchette, N. Shabestary and **S. Khazaeli** 3897 Complexation of caesium and rubidium cations with crown ethers in *N,N*-dimethylformamide

Communications

Wai-Kwok Wong, Tat-Wai Chik, Xue Feng and T. C. W. Mak 3905 Synthesis and characterization of chiral diimino- and diamino-diphosphine complexes of ruthenium. X-ray crystal structure of *trans*-$RuCl_2$(*1R,2R*-cyclohexyl-P_2N_2)·$C_6H_5CH_3$

F. S. McQuillan, Hongli Chen, T. A. Hamor and **C. J. Jones** 3909 Metal directed syntheses of metallocyclophanes containing triangular arrays of interacting redox active octahedral metal centres, X-ray crystal structure of $[W(Tp^*)(NO)(OC_6H_4O)]_3$

Soh-Yun Siah, K. F. Mok and **Pak-Hing Leung** 3915 ^{1}H NMR studies of palladium complexes with tridentate chelates, E—S(O)—E (E = P, As) and their novel asymmetric analogue

Announcement

I Annual Polyhedron Publication Award

II Deposition of crystallographic data

NUMBER 22

iii Contributors to this issue

iv Instructions to contributors

D. Das, **N. R. Chaudhuri** and A. Ghosh 3919 Solid-state *trans*→*cis* thermochromic isomerism in the N-propylethane-1,2-diamine complex of nickel(II) nitrate

L. Sieroń, **M. Bukowska-Strzyżewska,** A. Cygański and A. Turek 3923 X-ray crystal structures of $[Bi(C_2H_2N_2S_3)(SCN)_3]$ (1) and $Cs_2K[Bi(SCN)_6]$ (2). An unusual pentagonal-pyramidal co-ordination of Bi^{III} in (1)

Y. Gok 3933 The synthesis and characterization of new substituted diamino-glyoxime and its cobalt(III) complexes containing 15-membered dioxa-trithia macrocyclic moieties

Guan-Yeow Yeap, Siang-Guan Teoh, Soon-Beng Teo, Saow-Chen Loh and Hoong-Kun Fun 3941 Inner sphere complexes derived from the coordinate interactions of tin(IV) isothiocyanate moieties with 1-[(4-methylphenylimino)methyl]-2-phenol. Crystal structure of diisothiocyanatodimethylbis {1-[(4-methylphenylimino)methyl]-2-phenol} tin(IV), $Me_2Sn(NCS)_2 \cdot [HOC_6H_4CH{:}NC_6H_4CH_3]_2$

I-Chih Liu, **Jyh-Horung Chen,** Shin-Shin Wang and Ju-Chun Wang 3947 Synthesis and characterization of antimony complexes of *meso*-tetraphenylporphyrin (tpp) and *meso*-tetra(4-methoxyphenyl) porphyrin (tmpp), and the X-ray crystal structure of [Sb(tmpp) $Cl_2]^+OH^-$

Y. Gok 3955 The synthesis and characterization of novel vicinal dioxime and its cobalt(III) complexes containing 17-membered macrocyclic ionophores

Jing-Yang Niu, Jing-Ping Wang, **Xiao-Zeng You,** T. C. W. Mak and Zhong-Yuan Zhou 3963 Transition metal disubstituted ternary heteropolyoxometallates: synthesis, characterization, crystal structure and magnetic properties

V.-C. Arunasalam, **D. M. P. Mingos,** J. C. Plakatouras, I. Baxter, **M. B. Hursthouse** and K. M. A. Malik	3971	Synthesis and structural characterization of the β-diketonate aryloxide dimer $[Ca_2(tmhd)_4(OAr_N)_4(EtOH)_2]$ (where H-tmhd = 2,2,6,6-tetramethylheptane-3,5-dione; H-OAr_N = 2,6-N,N-dimethylaminomethyl-4-methylphenol)
K. Selvakumar and **S. Vancheesan**	3979	Cyclopalladated binuclear complexes of Schiff bases
W. Uhl, R. Gerding, I. Hahn, S. Pohl, W. Saak and H. Reuter	3987	The insertion of chalcogen atoms into Al—Al and Ga—Ga bonds: monomeric compounds with Al—Se—Al, Ga—S—Ga and Ga—Se—Ga groups
I. Abraham, W. Hörner, T. S. Ertel and H. Bertagnolli	3993	Magnesium and bromine EXAFS studies of Grignard compounds in solution
J. García-Lozano, L. Soto, J.-V. Folgado, E. Escrivá and J.-P. Legros	4003	Stereochemistry of [Cu(tridentate ligand)$_2$] entities. Crystal and molecular structure and electronic properties of $[Cu(tedpa)_2](PF_6)_2$ (tedpa = N,N,N′N′-tetraethyl pyridinedicarboxamide)
S. Thambidurai, K. Jeyasubramanian and **S. K. Ramalingam**	4011	Bis(benzotriazol-1-yl) methylimine as a novel cyanating agent for labile β-diketonates
W. Henderson and B. K. Nicholson	4015	Synthesis and electrospray mass spectrometry of platinum(II) complexes derived from thiourea dianions and the X-ray structure of [Pt{NMeC(=NCN)S}(COD)] (COD = cyclo-octa-1,5-diene)
M. R. Ullah, **P. K. Bhattacharya,** and K. Venkatasubramanian	4025	Study of ternary complexes containing tridentate and bidentate ligands
J. D. Niemoth-Anderson, J. R. D. Debord, **T. A. George,** C. R. Ross II and J. J. Stezowski	4031	Synthesis of phenyldiazenido, phenylhydrazido and diorgano-hydrazido complexes of molybdenum and tungsten and their reactions with acids: a comparison with analogous unsubstituted hydrazido (NNH_2) complexes. The crystal structure of $[WCPl_2(NN(H)Ph)(PMe_2Ph)_3]$
Ping-Rong Wei, Bo-Mu Wu, Wing-Por Leung and **T. C. W. Mak**	4041	Interpenetrating network structure of a polymeric complex of zinc(II) perchlorate with 1,4-diazoniobicyclo[2.2.2]octane-1,4-dipropionate
Weipin Su, **Maochun Hong,** Feilong Jiang, Hanqin Liu, Zhongyun Zhou, Dedong Wu and **T. C. W. Mak**	4047	A cleavage of the S—C bond in 2-aminothiophenal: synthesis and crystal structure of $[Ag_{11}(\mu_5\text{-}S)(\mu_4\text{-}S_2CNEt_2)_6(\mu_3\text{-}S_2CNEt_2)_3]$
F. A. Cotton and G. Schmid	4053	Proposed reformulation of recently reported "tetrahedral molybdenum(II)" complexes: trimethylphosphine complexes of zinc chloride
Jicheng Shi, Daxu Wu, Tingbin Wen, Getan Lu, Qiutian Liu and **Beisheng Kang**	4061	Chiral phosphine ligands derived from sugars—6. Syntheses and spectroscopic studies on rhodium complexes with a new type of chiral phosphines
Linpei Jin, Shuangxi Lu and Shaozhe Lu	4069	Crystal structure and spectra of complex [Eu(*o*-ABA)$_3$bipy]bipy
F. A. Cotton and D. de O. Silva	4079	Preparation and crystal structure of dimolybdenum(II) complexes with the 4-biphenylcarboxylate ligand and its bispyridine adduct
I. R. Butler, D. S. Brassington, R. A. Bromley, P. Licence and J. Wrench	4087	Ferrocenylhydroxyquinolines: synthesis and characterization
T. Kogane, K. Harada, R. Hirota and A. Urushiyama	4093	Structures and characterization of reaction products of bis(1,1,1,5,5,5-hexafluoropentane-2,4-dionato)copper(II) with 3-methyl- and 3,5-dimethyl-1*H*-pyrazoles

Communications

E. Solari, A. Klose, **C. Floriani,** N. Re, A. Chiesi-Villa and C. Rizzoli — 4103 — Design and X-ray structure of a planar oxo matrix for binding transition metals: the use of 2-hydroxyisonaphthalic acid as a building block for planar oxo matrices

D. S. Brown, A. Decken and **A. H. Cowley** — 4109 — Synthesis and X-ray crystal structure of a benzannelated diazabutadiene (DAB) complex of gallium

Book Review

S. Cotton — 4113 — Phosphorus. An outline of its chemistry, biochemistry and technology

4115 Erratum

4116 Corrigendum

Announcement

I Annual Polyhedron Publication Award

II Crystallographic Data

NUMBER 23

iii Contributors to this issue

iv Instructions to contributors

He-Ping Wu, Zhuan-Yun Zhao, Sheng-Ming Liu, Er-Run Ding **Yuan-Qi Yin,** Xiao-Ying Huang and Kai-Bei Yu — 4117 — The reaction of $(\mu_3\text{-}CCO_2R)Co_2M(CO)_8L$ (M = Co, Mo, W; L = CO, MeCp; R = Me, Et) with $Na_2[Fe(CO)_4]$. X-ray crystal structure analysis of $(EtO_2CCCCO_2Et)Co_4(CO)_{10}$ and $(MeO_2CCCCO_2Me)FeCo_2(CO)_9$

Ji-Hong Yu, Jie-Sheng Chen, **Ru-Ren Xu,** Yi-Hua Xu and Yong Yue — 4127 — Hydrothermal synthesis and characterization of a new boron–aluminium oxochloride

E. Suresh, M. M. Bhadbhade and **D. Srinivas** — 4133 — Molecular association, chelate conformation and reactivity correlations in substituted *o*-phenylenebis(salicylidenaminato) copper(II) complexes: UV–visible, EPR and X-ray structural investigations

S. V. Volkov, V. I. Pekhnyo, Z. A. Fokina and V. B. Rybakov — 4145 — Halogen chalcogenide complexes of osmium(IV)

Hanzhang Wang, Qingfeng Xu, Pu Qian, Jianying Tong and Zhengbai Cao — 4155 — Synthesis, properties and structures of some lanthanide nitrate complexes with *N*-butylcaprolactam, $Ln[CH_2(CH_2)_4CONC_4H_9]_3(NO_3)_3$

K. R. Reddy, **M. V. Rajasekharan** and S. Sukumar — 4161 — Synthesis and structural characterization of an unsymmetrical (μ-oxo)-di-(μ-acetato) manganese(III,III) complex $[[Mn_2O(OAc)_2(H_2O)(NO_3)(bpy)_2](ClO_4)\cdot CH_3COOH]$

Feng Xu, Wen Hua Sun, **Shi Yan Yang,** Yuan Qi Yin and Qiang Jin Wu — 4169 — Synthesis, characterization and structure of a new μ_4-S cluster $[(\eta^5\text{-}C_5H_5)Fe_3Co(CO)_{11}(\mu_4\text{-}S)]$

K. B. Dillon, **V. C. Gibson,** J. A. K. Howard, L. J. Sequeira and Jing-Wen Yao — 4173 — Bis(imido) molybdenum(IV) complexes containing η^2-diphosphene ligands

O. L. Casagrande Jr, K. Tomita, **A. E. Mauro** and D. R. Vollet — 4179 — Small angle X-ray scattering and IR spectroscopy study of metal carbonyl complexes immobilized on a silica gel surface chemically modified with piperazine

M. R. Bermejo, M. Fondo, A. Garcia-Deibe, M. Rey, J. Sanmartín, **A. Sousa,** M. Watkinson, C. A. McAuliffe and R. G. Pritchard	4185	The diversity observed in manganese(III) complexes of tetradentate Schiff base ligands: an assessment of structural trends
Shi-Xiong Liu and Yun-Long Feng	4195	Mononuclear and binuclear manganese(III) complexes with N,N′-ethylenebis(1-phenyl-3-imino-1-butanonato) ligand. X-ray crystal structures of $[Mn(bzacen)(MeOH)_2](ClO_4)$ and $[Mn_2(bzacen)_2(MeOH)_2](ClO_4)_2 \cdot 2H_2O$
L. Escriche, M.-P. Almajano, J. Casabó, F. Teixidor, J. C. Lockhart, G. A. Forsyth, R. Kivekäs and M. Sundberg	4203	Synthesis and molecular dynamics studies of the new ditopic *para*-xylyl containing macrocycle 2,5,8,17,20,23-hexathia [9,9]-*p*-cyclophane(*p*-S6). X-ray crystal structure of the di-copper(I) complex $[Cu_2(p\text{-}S6)(CH_3CN)_2](BF_4)_2$
A. B. Burdukov, **V. I. Ovcharenko,** R. Z. Sagdeev, N. V. Pervukhina, V. N. Ikorskii, I. A. Kirilyuk and I. A. Grigor'ev	4211	The competition of basicity and steric factors in the nitroxide donor functions in metal complexes: the study of $M(hfac)_2$ (M = Co, Ni) adducts with 3-imidazoline nitroxides
H. G. L. Siebald, P.-L. Fabre, **M. Dartiguenave,** Y. Dartiguenave, M. Simard and A. L. Beauchamp	4221	Preparation and crystal structure of trans-diazidotetrakis (trimethylphosphine)ruthenium(II)
G. R. Willey, P. R. Meehan, P. A. Salter and M. G. B. Drew	4227	Crown ether complexation of $PrCl_2^+$: synthesis and structural characterisation of $[PrCl_2(dibenzo\text{-}18\text{-}crown\text{-}6)(H_2O)][SbCl_6] \cdot 0.5MeOH \cdot 0.5MeCN$
B. Marciniec, P. Krzyżanowski and M. Kubicki	4233	The structure and some reactions of di-μ-trimethylsilyloxy-bis-(norborna-2,5-diene)-dirhodium(I)
Song-Ping Huang, K. J. Franz, E. H. Arnold, J. Devenyi and **R. H. Fish**	4241	Polymer pendant ligand chemistry—5. The selective and competitive removal of Ag^+, Hg^{2+}, Cu^{2+}, Pb^{2+} and Cd^{2+} ions from aqueous solution utilizing a N-sulfonylethylenebis(dithiocarbamate) ligand anchored on macroporous polystyrene–divinylbenzene beads
C. A. Hester, **H. L. Collier** and R. G. Baughman	4255	Synthesis and characterization of polymeric $[CdBr_2(H_2biim)]_n$
J. T. Mague and M. S. Balakrishna	4259	Synthesis and chemistry of the "metalloligand" $[CpRu(\eta^2\text{-}dmpm)(\eta^1\text{-}dmpm)]Cl$. X-ray crystal structures of $[CpRu(\eta^2\text{-}dmpm)(PPh_3)]Cl$ and $[CpRu(\mu\text{-}dmpm)_2\ Pt(PPh_3)]PF_6 \cdot CH_2Cl_2$
G. Alonzo, N. Bertazzi, F. Maggio, **F. Benetollo** and G. Bombieri	4269	The reaction of di-2-pyridyl ketone with catecholato antimony (III) fluoride. Preparation, Mössbauer spectrum and crystal structure of catecholato(methoxydi-2-pyridylmethoxo-NO) antimony(III)
G. M. Maksimov and R. I. Maksimovskaya	4275	On the $P_2W_{16}O_{60}^{14-}$ heteropolyanion synthesis
M. Petrič, I. Leban and P. Šegedin	4277	Complexes of copper(II) carboxylates with ammonia. Crystal structure of $Cu(O_2CC_9H_{19})_2(NH_3)_2(H_2O)$
A. El Gueddi, S. Guesmi, **B. Mernari, H. Stoeckli-Evans,** J. Ribas, R. Vicente and M. Lagrenee	4283	Synthesis and characterization of bis(3,6-dicarboxypyridazine)-bis(aqua)manganese(II)dihydrate
Si-Wei Zhang, **Dai-Zheng Liao,** Zong-Hui Jiang and Geng-Lin Wang	4289	Synthesis and magnetic properties of chromium(III)–nickel(II)–chromium(III) trinuclear complexes with extended dioximato groups

Communications

Li-Cheng Song, Ji-Quan Wang, Qing-Mei Hu and Xiao-Ying Huang — 4295 — The first examples of $Mo_2Ru_2S_2$ cluster compounds obtained through a new type of reaction. Crystal structure of $[(\eta^5\text{-}MeO_2CC_5H_4)_2(\mu_3\text{-}CO)_2Mo_2Ru_2(\mu_3\text{-}S)_2(CO)_6]$

K. Aoyagi, P. K. Gantzel and **T. D. Tilley** — 4299 — Bis(triisopropylsilyl)-*o*-phenylenediamido complexes of tantalum. X-ray structure of $(\eta^5\text{-}C_5Me_5)[o\text{-}C_6H_4(NSiPr^i_3)_2]TaCl_2$

Yong-Ge Wei, **Shi-Wei Zhang,** Mei-Cheng Shao, Qun Liu and You-Qi Tang — 4303 — Synthesis, structure and magnetic properties of a polymeric trinuclear mixed-valence manganese malonate complex

D. G. Kelly, A. J. Toner, N. M. Walker, S. J. Coles and M. B. Hursthouse — 4307 — Formation of titanium–aluminium Schiff base complexes: X-ray structure of $[Ti(\mu\text{-}Cl)(AlMe_2)(\mu\text{-}Cl)(AlMe_2X)(salen)]$ (X = Me or Cl)

Announcement

I — Annual Polyhedron Publication Award

II — Crystallographic Data

NUMBER 24

iii — Contributors to this issue

iv — Instructions to contributors

POLYHEDRON REPORT NO. 62

I. Manners — 4311 — Ring-opening polymerization (ROP) of strained, ring-tilted silicon-bridged [1]ferrocenophanes: synthetic methods and mechanisms

J. P. R. F. André, **H. D. Burrows,** C. F. G. C. Geraldes, M. D. G. M. Miguel, M. H. S. F. Teixeira and L. F. Vilas Boas — 4331 — Potentiometric, luminescence and NMR study of the interaction of Eu^{III} with glyceryl phosphates

C. Kremer, E. Kremer, S. Domínguez, E. Chinea, **A. Mederos** and A. Castiñeiras — 4341 — Synthesis, characterization and potentiometric studies of *trans*-dioxorhenium(v) complexes. X-ray crystal structure of $[ReO_2(tn)_2]I \cdot H_2O$

N. Yanagihara, T. Gotoh and T. Ogura — 4349 — Complex formations of silver(I) trifluoroacetate and trifluoromethanesulfonate with benzene and cyclohexene

J. B. Arterburn, Ye Wu and **W. Quintana** — 4355 — Synthesis and characterization of a new isocyanato carborane anion $[7\text{-}O{=}C{=}N\text{-}7\text{-}CB_{10}H_{12}]^-$; study on its reactivity toward amino containing compounds

K. Andelković, I. Ivanović, B. V. Prelesnik, V. M. Leovac and D. Poleti — 4361 — Synthesis and structure of aquamethanol-2′,2‴-(2,6-pyridindiyldiethylidene)-dioxamohydrazidocobalt(II) perchlorate

In-Kyung Lee and **Moo-Jin Jun** — 4367 — Dichloro and amino acid cobalt(III) complexes of N,N′-diethylethylenediamine-N,N′-di-*a*-butyrate ligand

A. Drljaca and **L. Spiccia** — 4373 — Early stages of the hydrolysis of chromium(III) in aqueous solution—XII. Kinetics of cleavage of the trimer and tetramer in acidic solution

T. M. Klapötke and A. Schulz — 4387 — Reaction of NS^+ with N_3^-

T. Murakami, T. Takei, Y. Ishikawa and **S. Kita**	4391	Crystal structures and spectral properties of five-coordinate copper(II) complexes with N,N,N′,N″,N″-pentamethyldiethylenetriamine (pmdt) and α-diamines: approximately regular trigonal bipyramidal $[Cu(en)(pmdt)](ClO_4)_2$ and highly distorted $[Cu(SS\text{-chxn})(pmdt)](ClO_4)_2$ (en = 1,2-diaminoethane and *SS*-chxn = (1*S*,2*S*)-1,2-diaminocyclohexane)
Li-Min Zheng, H. W. Schmalle, R. Huber and **S. Decurtins**	4399	Synthesis, crystal structure and magnetic properties of a chloranilate-bridged manganese(II) chain compound: $[Mn(bipy)(CA)]_n$ (bipy = 2,2′-bipyridine, CA = chloranilate anion)
A. García-Raso, J. J. Fiol, F. Bádenas and M. Quirós	4407	X-ray diffraction structures of two N-salicylidene tryptophananato diaquocopper(II) complexes: *erythro* and *threo* isomers
Tian Yu-Peng, Duan Chun-Ying, Lu Zhong-Lin, **You Xiao-Zeng** and T. C. W. Mak	4415	Synthesis, crystal structure and equilibrium studies on the bidentate amine adducts of bis(S-methyl-β-N-(4-methyloxyphenyl)methylendithiocarbazide)nickel(II) complex
Wing-Hong Chiu, **Chi-Ming Che** and T. C. W. Mak	4421	Synthesis and crystal structure of a dinitrogen ruthenium(II) macrocyclic tertiary amine complex
M. Dotzler, A. Schmidt, **J. Ellermann,** F. A. Knoch, M. Moll and W. Bauer	4425	Chemistry of polyfunctional molecules—123. Reactions of $BiBr_3$, SbI_3 and AsI_3 with $LiN(PPh_2)_2$; X-ray structure of a cyclophosphazene salt containing arsenic(I)
T. Carofiglio, E. Solari, **C. Floriani,** A. Chiesi-Villa and C. Rizzoli	4435	UV stabilizers bonded to transition metals: synthesis and X-ray structure of 2-(2′-hydroxyphenyl)benzotriazole-oxovanadium(IV) and -dioxomolybdenum(VI) complexes
D. Cupertino, R. Keyte, A. M. Z. Slawin, **J. D. Woollins** and D. J. Williams	4441	The preparation and characterization of $[M\{N(Pr^i_2PS)_2\}_2]$ (M = Pt,Pd) and $[Pd\{N(Pr^i_2PS)_2\}\{HN(Pr^i_2PS)_2\}]Cl$
Wai-Kwok Wong, Tat-Wai Chik, Kin-Ning Hui, I. Williams, Xue Feng, T. C. W. Mak and Chi-Ming Che	4447	Preparation of chiral diimino- and diaminodiphosphine ligands and their Cu^I and Ag^I complexes. X-ray crystal structures of $[Cu(1S,2S\text{-cyclohexyl-}P_2N_2)][PF_6]$ and $[Ag(1R,2R\text{-cyclohexyl-}P_2N_2H_4)][BF_4]$
A. Pasini, E. Bernini, M. Scaglia and **G. De Santis**	4461	Studies on the oxidation of Cu^{II} complexes of quadridentate Schiff bases derived from salicylaldehyde or *ortho*-aminophenol
K. M. Carlson-Day, T. E. Concolino, **J. L. Eglin,** Chun Lin, Tong Ren, E. J. Valente and J. D. Zubkowski	4469	The evaluation of singlet–triplet separations for $[W_2(\mu\text{-H})(\mu\text{-Cl})Cl_4(\mu\text{-dppm})_2]$ and $[W_2(\mu\text{-H})_2(\mu\text{-}O_2CC_6H_5)_2Cl_2(P(C_6H_5)_3)_2]$ based on ^{31}P NMR and crystallographic data
M. Fondo, **M. R. Bermejo, A. Sousa,** J. Sanmartín, M. I. Fernández and **C. A. McAuliffe**	4479	Synthesis and reactivity with sulfur dioxide of manganese(II) complexes containing pyridine-N-oxide and 4-methylpyridine-N-oxide as ligands
Huailin Sun, Xiuzhong Zhou, Xinkan Yao and Honggen Wang	4489	Organopolysilane oligomers bearing transition-metal moieties: synthesis, reactivities and molecular structure of $[\eta^5\text{-}Me_3SiMe_2SiC_5H_4(CO)Fe(CO)_2Fe(CO)\text{-}\eta^5\text{-}C_5H_4SiMe_2SiMe_3]$
G. R. Willey, M. P. Spry and M. G. B. Drew	4497	Azamacrocyclic stabilization of $SbCl_2^+$: synthesis and crystal structure of $[SbCl_2(Me_3[9]aneN_3)][SbCl_6]$ showing explicit Sb^{III} lone-pair stereochemical activity. $Me_3[9]aneN_3$ = 1,4,7-trimethyl-1,4,7-triazacyclononane
K. Matsumoto, I. Nakanishi, H. Nakano and S. Ooi	4501	Syntheses and X-ray structures of mixed benzenethiolato-sulfido and -selenido trinuclear nickel clusters
P. Schwendt, A. Oravcová, J. Tyršelová, F. Pavelčik and J. Marek	4507	The first tetranuclear vanadium(V) peroxo complex: preparation, vibrational spectra and X-ray crystal structure of $K_7[V_4O_4(O_2)_8(PO_4)]\cdot 9H_2O$

M. A. S. Goher, N. A. Al-Salem, and F. A. Mautner — 4513 — Synthesis, spectral and structural characterization of two polymeric 1:1 complexes of 2,3-dimethylpyridine and 5-ethyl-2-methylpyridine with copper(II) azide; Cu(2,3-dimethylpyridine) $(N_3)_2$ and Cu(2-methyl-5-ethylpyridine) $(N_3)_2$

I. K. Igumenov, P. P. Semyannikov, S. V. Belaya, A. S. Zanina, S. I. Shergina and I. E. Sokolov — 4521 — New volatile β-diketonate complexes of barium with sterically hindered methoxy-β-diketones as precursors for CVD

E. E. Sileo, M. A. Blesa, G. Rigotti, B. E. Rivero and E. E. Castellano — 4531 — The crystal chemistry of copper(II) dipicolinates

J. M. Smith, D. P. White and **N. J. Coville** — 4541 — Substituted cyclopentadienyl ligands—10. Intramolecular steric interactions in $[(\eta^5\text{-}C_5H_3(SiMe_3)_2)\ Mo(CO)_2(L)I]$

A. S. J. Wery, **J. M. Gutierrez-Zorrila,** A. Luque, **P. Roman** and M. Martinez-Ripoll — 4555 — Influence of protonation on crystal packing and thermal behaviour of *tert*-butylammonium decavanadates

Cai-Ming Liu, Ren-Gen Xiong, **Xiao-Zeng You,** Yong-Jiang Liu and Kung-Kai Cheung — 4565 — Crystal structure and some properties of a novel potent Cu_2Zn_2 SOD model Schiff base copper(II) complex $\{[Cu(bppn)](ClO_4)_2\}_2 \cdot H_2O$

M. N. Gibbons, **D. B. Sowerby,** C. Silvestru and I. Haiduc — 4573 — Reduction of antimony(V) by dithiophosphinates and the crystal structure of dimeric diphenylantimony(III) dimethyldithiophosphinate

M. A. De Almeida Azzellini, M. D. F. P. De Oliveira, N. Y. M. Iha and **V. K. L. Osorio** — 4579 — The ion-pair association constant of oxalate with *fac*-tris(2-aminomethylpyridine)cobalt(III)

Xiu R. Bu, E. A. Mintz, Xiao Z. You, Rei X. Wang, Yue Qi, Qin J. Meng, Yun J. Lu and D. Van Derveer — 4585 — Synthesis and characterization of vanadyl complexes with unsymmetrical bis-Schiff base ligands containing a *cis*-N_2O_2 coordinate chromophore

Communications

Wai-Kwok Wong, Lilu Zhang, Wing-Tak Wong, Feng Xue and T. C. W. Mak — 4593 — Synthesis and X-ray crystal structures of $[Ph_2PMe_2][(\eta^5\text{-}C_5H_4Bu^t)_2Li]$ and $[(\eta^5\text{-}C_5H_4Bu^t)_2Yb(Cl)CH_2P(Me)Ph_2]$

M. C. Kuchta and **G. Parkin** — 4599 — Oxidative-addition to a four-coordinate tin(II) complex supported by octamethyldibenzotetraaza[14]annulene dianion ligation, $[\eta^4\text{-}Me_8taa]Sn$: the syntheses and structures of $[\eta^4\text{-}Me_8taa]SnI_2$ and $\{[\eta^4\text{-}Me_8taa]SnI(THF)\}\{I_3\}$

J.-R. Galan-Mascaros, A. M. Z. Slawin, **J. D. Woollins** and D. J. Williams — 4603 — π-Facial interactions between Cl^- and $[S_4N_3]^+$. X-ray crystal structure of $[S_4N_3]Cl$

Announcement

I Annual Polyhedron Publication Award

III Crystallographic Data